

A Trilingual Learner Corpus illustrating European Reference Levels

Abel, Andrea*; Nicolas, Lionel*; Hana, Jirka•; Štindlová, Barbora →; Bykh, Serhiy•; Meurers, Detmar•

European Academy Bolzano/Bozen*; Charles University Prague•;

Technical University Liberec →; University of Tübingen

andrea.abel@eurac.edu; lionel.nicolas@eurac.edu;

jirka.hana@gmail.com; barbora.stindlova@tul.cz; detmar.meurers@unituebingen.de; sbykh@sfs.uni-tuebingen.de



LCR 2013 – Bergen, Norway September 27-29 2013







Outline

- Introduction
- Data collection and preparation
- Creation of the annotation schemata
- Annotation workflow and technical background
- Conclusions and outlook





1. Introduction: Aims of the contribution

- to present the MERLIN project
- to detail its current state and explain its latest developments





MERLIN: "Multilingual Platform for the European Reference Levels: Interlanguage Exploration in Context": www.merlin-platform.eu

Background

- Common European Framework of Reference for Languages (CEFR) as THE leading instrument for language teaching and certification and the development of curricula in Europe
- Core of the CEFR: reference levels & descriptors
- Not enough data illustrating the meaning of the CEFR levels in terms of authentic learner data (above all for languages other than English)

(cf. e.g. CoE 2001; englishprofile.org, Spinelli/Parizzi 2010, Carlsen 2013)





Aims of the project:

- to develop a didactically motivated, freely accessible online platform containing authentic learner data illustrating the CEFR levels for German, Italian and Czech
- to create a database containing written learner productions deriving from standardized language tests that have been related in a methodologically rigorous way to the CEFR levels
- to contribute to the validation of the CEFR levels of the languages in question

(cf e.g. Wisniewski 2013, Hulstijn/Alderson/Schoonen 2010, Alderson 2007, Hulstijn 2007, Little 2007, Alderson/Figueras/Kuijper/Nold/Takala/ Tardieu 2004, Fulcher 2004, Bausch/ Christ/Königs/Krumm 2003)







Target groups:

 teachers, teacher trainers, test developers, text book authors, learner, and educational policy makers

Cooperation project:

- Financing: Lifelong Learning Programme (nr. 518989-LLP-1-2011-1-DE-KA2-KA2MP)
- Duration: 01/2012 12/2014
- Project partners: Technische Universität Dresden (DE) (Lead Partner), EURAC (IT),
 Charles University (CZ), telc GmbH (DE), Berufsförderungsinstitut Oberösterreich (AT),
 Eberhard-Karls-Universität Tübingen (DE), European Center of Modern Languages Council of Europe (AT) (associated partner)







Data source:

- standardised tests (sources: telc, DE: German & Italian, UJOP-Charles University Prague, CZ, UNIcert, DE: Czech)
- written learner productions (3-4 tasks per language and level) & meta data (L1, age, gender ...)

	German	Italian	Czech	
A1	229	229		
A2	228	224	131	
B1	231	223	171	
B2	225	222	131	
C1	226			
TOTAL	1139	898	433	2470





Data preparation – re-ratings:

- Professional raters rater training
- Re-rating of all tests (ca. 10% double rated) using an own CEFR compliant rating grid:
 - holistic rating scale (global scale: general linguistic range) &
 - analytical rating scales: → rating criteria: vocabulary range, vocabulary control, grammatical accuracy, orthographic control, sociolinguistic appropriateness, coherence and cohesion
- Quality control of ratings: test analyses, including Multi-Facet Rasch analyses → high degree of reliability

(cf. e.g. CoE 2001, Alderson 1991)









Data preparation – transcription:

- Creation of transcription guidelines (including annotations such as insertions, deletions, unreadable elements, entities, emoticons, images, anonymization, ...)
- On-the-fly inline annotation (see section 4. Annotation workflow and technical background)







User modelling:

- Collection of requirements of the MERLIN platform on a content as well as a technical level (questionnaire study and expert interviews)
- Content part:
 - users' needs concerning the features of learner language that are considered most relevant
 - users' needs concerning the illustration of CEFR levels
- Technical part:
 - users' needs for search & display functionalities and concerning the technical environment of the platform







a) Linguistic analyses:

- Identification of indicators to describe aspects of learner language (errors and other linguistic characteristics) as basis for data annotation, data analysis and data query
- Identification of meaningful indicators for German, Italian and Czech
- Indicators originating from various sources:
 - CEFR derived indicators
 - 2. Experientially derived indicators
 - 3. Deductively derived indicators
 - 4. Inductively derived indicators







Indicators & sources:

- CEFR indicators: derived on the basis of the operationalisation of CEFR scale descriptors (chapter 5 scales; selected scales: criteria MERLIN rating grid), e.g. collocations, greetings, content jumps or intelligibility
- Experientially derived indicators (teachers, testers, text book authors):
 - specific CEFR illustration needs on the basis of the projects questionnaire study and expert interviews, e.g. verbal aspect – Italian/Czech, apostrophe use – Italian/ German, incorrect use of prepositions
 - features delivered by text book analyses, e.g. German modal verbs





- 3. Deductively derived indicators: extensive research literature review, such as Second Language Acquisition, Language testing, Corpus linguistics, e.g.
 - orthography: punctuation, capitalisation, ...
 - grammar: word order, negation, ...
 - vocabulary: different aspects of lexical knowledge, particular focus on formulaic sequences, ...
 - coherence/cohesion: connectors, use of text structural means, ...
 - sociolinguistic appropriateness/pragmatics: addressing, requests, ...

→ tags to be used also the for calculation e.g. of coherence/cohesion measures such as connector variety and accuracy, vocabulary measures such as (Advanced) Guiraud's Index, Lexical Density, percentage of error-free clauses etc.





4. Inductively derived indicators: on the basis of the linguistic analyses of performance samples (10 texts per level and language), e.g. register – level of formality, semantic errors, use of formulaic sequences, citations from test task, repetitions

(cf. e.g. Wisniewski 2013, Sieber 2012, Yang/Sun 2012, Vajjala & Meurers 2012, Paquot/Granger 2012, Bulté/Housen 2012, Granger & Bestgen 2011, Lu 2010, 2011, Mellor 2011, Carlsen 2010, Housen & Kuiken 2009, Bardovi-Harlig 2009, Malvern et al. 2008, Rimrott & Heift 2008, Burger 2007, Stede 2007, Nesselhauf 2005, Read/Nation 2004, Schmitt/McCarthy 2004, Dewaele 2004, Daller/Van Hout/Treffers-Daller 2003, Ortega 2003, Wray 2002, Santipolo 2002, Bachmann 2002, Nation 2001, 2007, Read 2000, Wolfe-Quintero, Inagaki & Kim 1998, Laufer/Nation 1995, O'Loughlin 1995, Halliday/Hasan 1989, Arnaud 1984)





Finalisation of the annotation scheme:

- Collection of a noticeable variety of indicators for German, Italian and Czech
- Selection of meaningful indicators for German, Italian and Czech
- Preparation of a harmonised annotation scheme taking both into consideration:
 - common features (e.g. register level of formality; opening/closing formulas; collocations, idioms; grapheme errors), and
 - language-specific features (e.g. gender/article in German, modal particles in German, reflexive pronouns in Czech, pronoun particles in Italian, lexicalised clitics in Italian)





Some details:

- record of: error vs. other linguistic characteristic
- annotation inleudes a combination of
 - linguistic classification of learner language features (e.g. orthography, grammar) &
 - a "target modification" (e.g. omission, addition) dimension
- annotation hierarchy 3 levels: Linguistic field, subfield, special phenomenon (e.g. Coherence/Cohesion, coherence, content jumps)
- tag description (guideline for annotators) & examples
- indication of the indicators source (transparent also for MERLIN end users)
- a detailed manual/documentation: description of the annotation scheme & the procedure

(cf. e.g. Díaz-Negrillo/Fernández-Domínguez 2006, Corder (1993 [1973])







b) Target hypotheses:

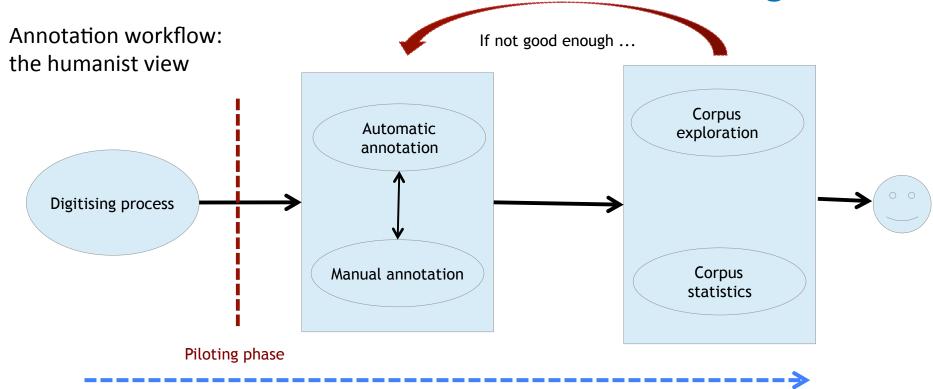
- Use of target hypothesis annotation with respect to error annotation: target hypotheses are provided for each learner production to explicitly record the forms on which the annotated interpretations are based (on the basis of the FALKO TH rules – HU Berlin):
 - Target hypothesis I → minimal changes: orthographically and grammatically acceptable sentences
 - Target hypothesis II → changes on semantic and pragmatic level, consideration of the context beyond the single sentence

(cf. e.g. Lüdeling 2008; Falko manual 1.0.1: Recnizeck/Walter et al. 2010)







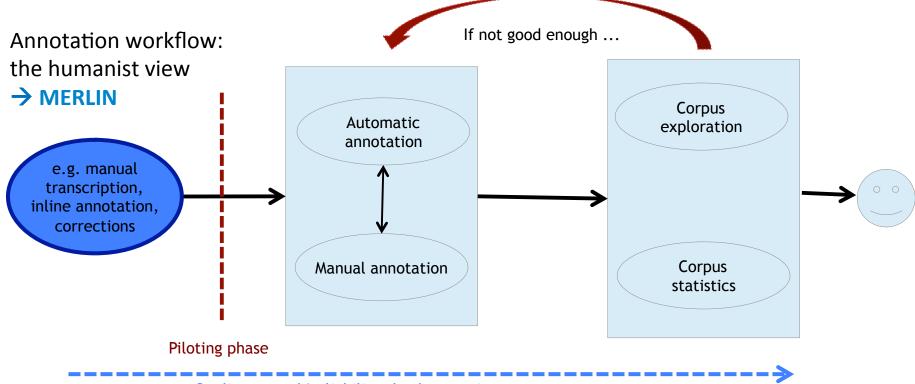


Quality control/reliability checks: e.g. inter annotator agreement







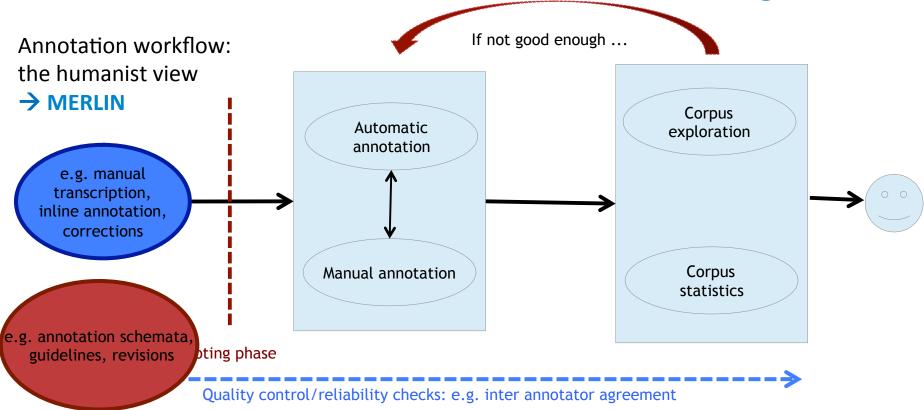


Quality control/reliability checks: e.g. inter annotator agreement





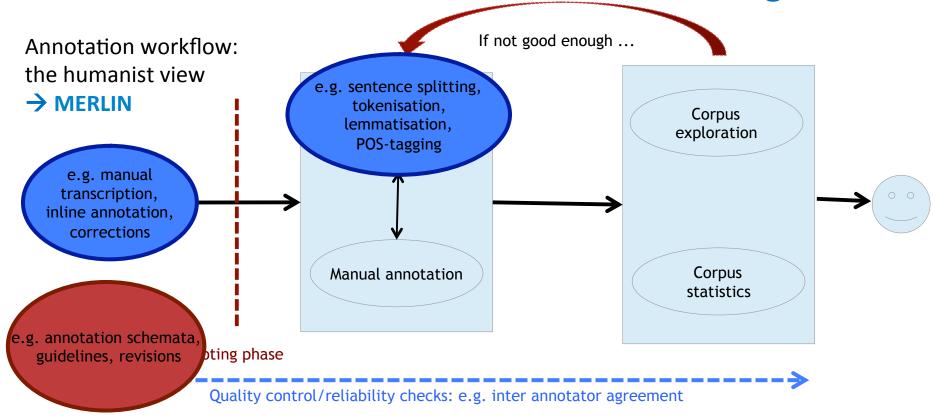








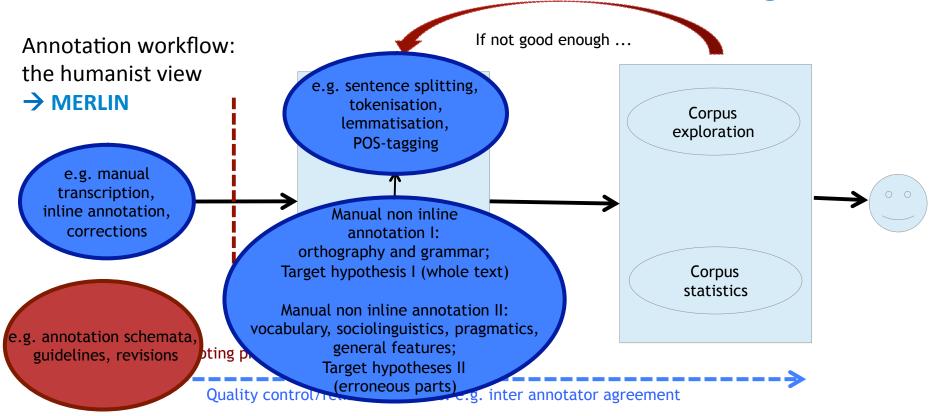








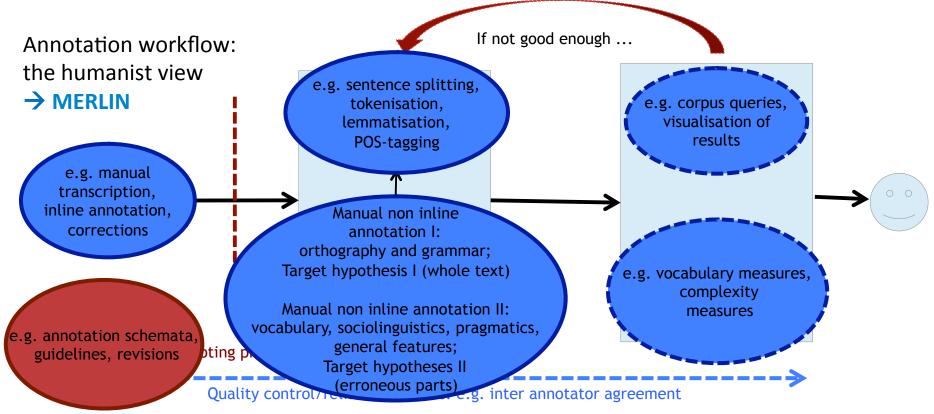








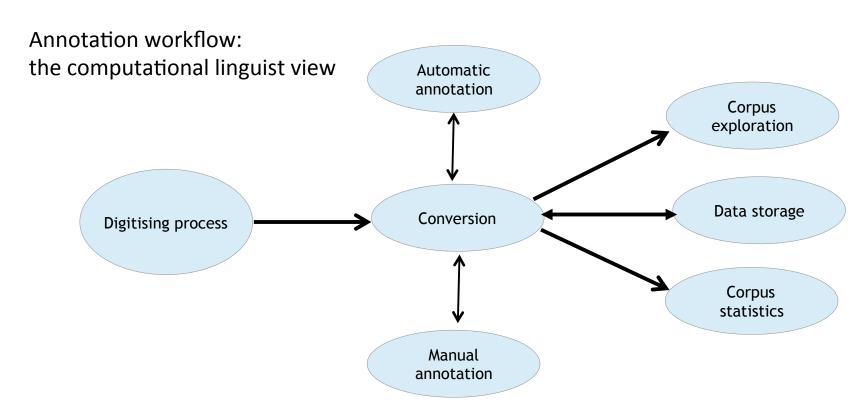








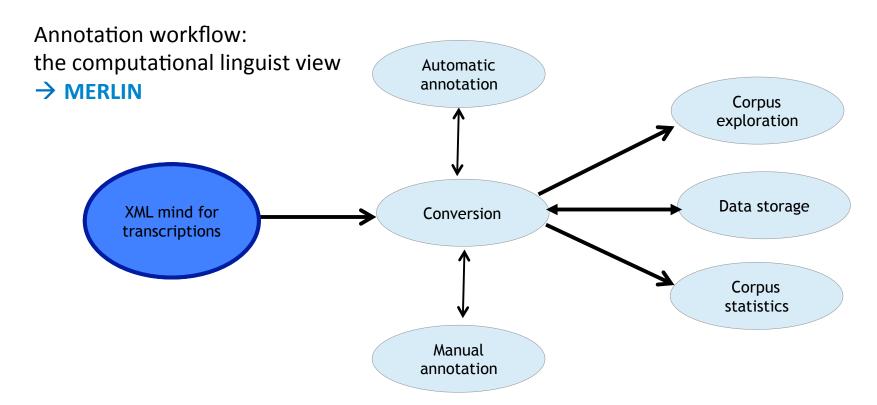






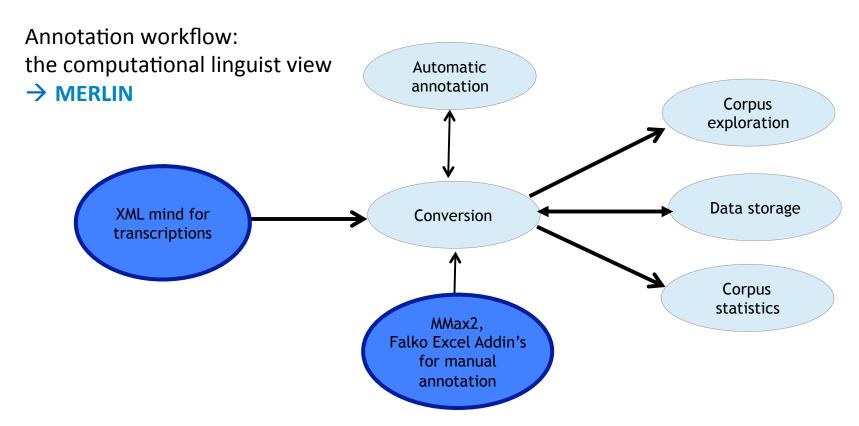








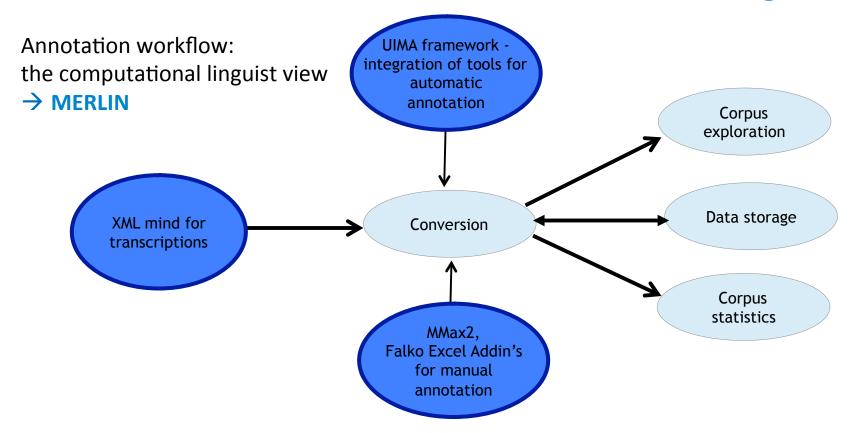








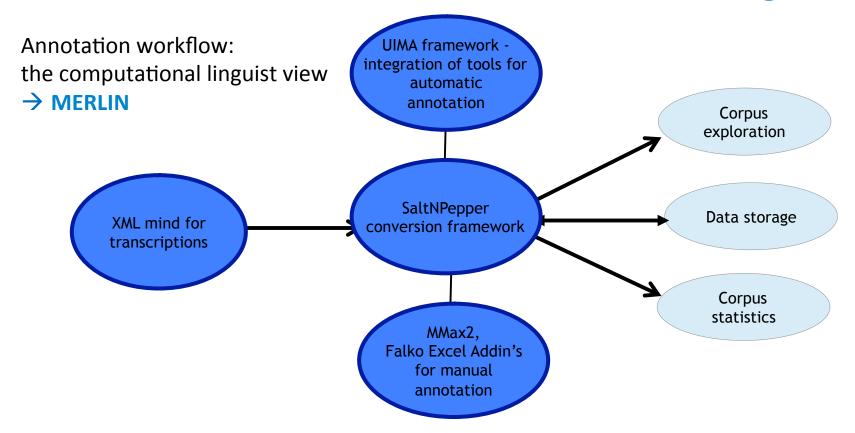








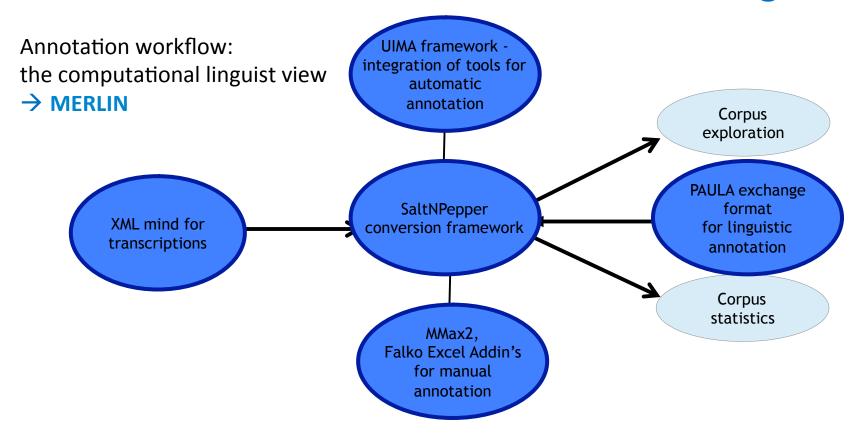








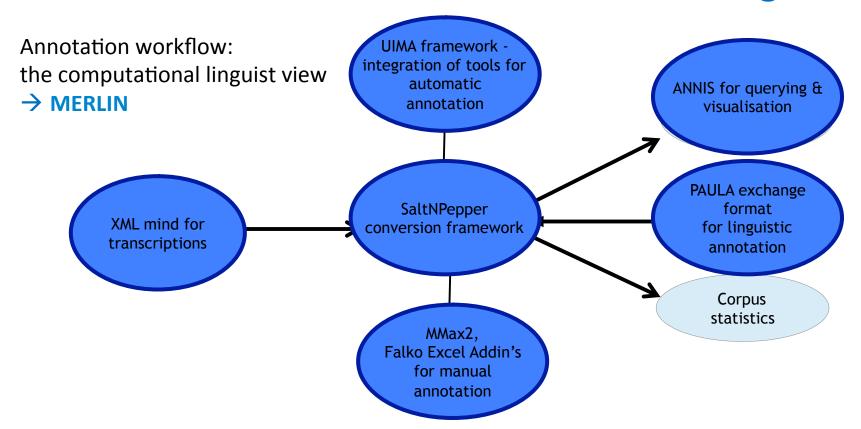








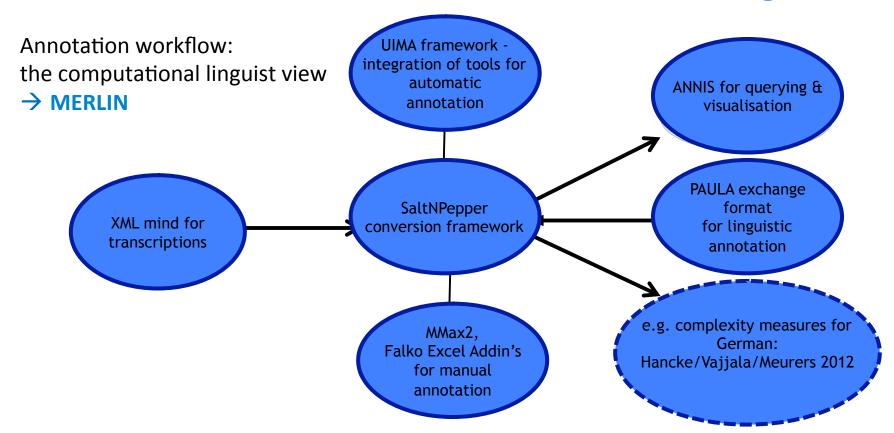


















5. Conclusions and outlook

Very advanced or completed tasks:

- Technical environment and annotation workflow established and implemented
- Data collected, transcribed and checked for all languages
- Inline annotations completed
- Annotation of target hypotheses I layer completed
- Annotation schemata established, piloting concluded

Next steps:

- Annotation of target hypotheses II layer
- Annotation of errors/linguistic features
- Enhancing automatic annotation
- Preparation of the online platform

(cf. MERLIN overview: Wisniewski/Schöne/Nicolas/Vettori/Boyd/Meurers/Abel/Hana: in print)

Andrea Abel





Conclusions and outlook

Outlook: The MERLIN online platform – content and functionalities:

- contains a richly annotated trilingual learner corpus (German, Italian, Czech)
- offers free online access, open source license for tools & resources
- shows full texsts & language test tasks
- is searcheable for a wide spectrum of L2-related phenomena (e.g. word order, collocations, greetings)
- can sort texts according CEFR level tasks linguistic phenomena
- produces word lists (e.g. showing words of a particular word class according to CEFR levels)
- delivers selected statistical measures (e.g. vocabulary indices, complexity & accuracy measures)
- compares features of learner languages from 3 language families (Germanic, Roman, Slavic)





Thank you for your attention!

Andrea Abel for the MERLIN-Team



www.merlin-platform.eu



Andrea Abel Institute for Specialised Communication and Multilingualism (European Academy Bolzano/Bozen EURAC) www.eurac.edu/iscm









Table 1. Common Reference Levels: global scale

Proficient User	C2	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/hersels spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.			
	C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.			
	B2	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.			
	B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.			
Basic User	A2	Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.			
	A1	Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.			

(CoE 2001)





	COHERENCE AND COHESION			
C2	Can create coherent and cohesive text making full and appropriate use of a variety of organisational patterns and a wide range of cohesive devices.			
C1	Can produce clear, smoothly flowing, well-structured speech, showing controlled use of organisational patterns, connectors and cohesive devices.			
B2	Can use a variety of linking words efficiently to mark dearly the relationships between ideas.			
	Can use a limited number of cohesive devices to link his/her utterances into dear, coherent discourse, though there may be some 'jumpiness' in a long contribution.			
B1	Can link a series of shorter, discrete simple elements into a connected, linear sequence of points.			
A2	Can use the most frequently occurring connectors to link simple sentences in order to tell a story or describe something as a simple list of points.			
	Can link groups of words with simple connectors like 'and', 'but' and 'because'.			
A1	Can link words or groups of words with very basic linear connectors like 'and' or 'then'.			

(CoE 2001)





Extract from the MERLIN rating grid

	Wortschatz: Spektrum	Wortschatz: Beberrschung	Grammatik	Kohärenz	Soziolinguistische Angemessenheit	Orthographic
C	SPECTRUM Sahr nicher Wortschafz HESONDERHEITEN Behernschung ungspracht/Alionatischer Werdungen, dabei Bewusstsein über Knesolutionen	ALLGEMEIN Durchgüngig kornict & segemessen	REPERTORE & KORREKTHET auch bi kompleon Sprachmituln 	THECT Cut goglisdert Zuwermenhängend KONNEKTOREN setzt Vielfalt an K. zur Chiederung & Varknipflung angemennen ein	ALLOEMEN anxiologuleische/exolotalturelle Implikationen von ISpruchern nichtig eingeschätzt die entspruchend nagiert IDIOMATIK Onte Kentzelses iden, fallagesprachl. Wendungen mit Konsotationen	lains orthographischen Fehler
CI	SPEATRUM Crober Wortschatz: BESONDERHEITEN - Oats Beberrschung ungespenchl/ distonatischer Wendunger; - Bei Lüdens problemios Umschnubungs; - Vermeidungsstrategien selben	FIZHLER Gelagentliche Ideiners Scheitzer, aber keine größenn Fehler	ALLGIMEN Bestledig behes Maß as Kornicheit KORRESTRIBT Febler sind Kaum auffallendinförend	TEXT - gut strukturient, klar KONNHEKTOREN beherscht K. - zur Glüderung - zur inhaltlichen und - zur sprachlichen Verlenüpfung	IDIOMATIK Großes Spichtens idiom /alleguspenchl. Rodewedungen erkannt STRACHIVE DIMINISTOR Wachal im Register richtig, eingeschlätzt SFRACHIUNKTIONEN • Kann Sprache zu gestelligen Zwacken fleschlad richtig vielster zu. • Kann Emotionen ausdrücken, Anspielungen und Schetze metade.	Gatakhang, Ciladerung, Zaichbawstrag (bousteast & hilfbaich Rachachmbung richtig, gelegentliches Verschreben
102	SPEKTRUM Order Worschaft in eigenen Sachgebiet A bei allgemeinen Themen BISSONDERHEITEN Formelinnungen werden verliert, um Wiederheitungen zu vermeiden. Tritterben Histonen Lideken zu Umsachneibungen filten	ALLCEMEN In Allgemeinen große Konsichseit FEHLER • Einige Verwechslungen fülsiche Wortwahl • Durch Pelsier beine Behinderung der Kommunikation	ALLGIMEN Chat Bebernchung der Grammatik KORRIEKTHEIT Durch Fehler entstehen knine Missverständnisse	TEXT - mass menblingend, klar - ord, sprangbaft bei längeren Beiträgen KOSNEKTOREN Begrenzte Anzahl	SITHATVE DMINSION Situationangementer Andruck ALLGEMEN • Kaine krussen Formalistungstehler. • Beluttigt nicht	Schrubt zusammenblingerd, kler verstendlich. Übliche Konventionen der Gestelbung dt Gliederung (Abeltne) eingehalten Rochtschenbung/Zeichensetzung hinnichend Intrukt, dabei evd. Li- Einflüsse
81	SPECTRUM Answichend großer Worschatz bei den meisten Themen des Allengelebens (bepox. Familie, Hobby, Internessen, Arbeit, Reimen, alterelle Emignisse) BESONDERHEITEN Dabei treien Umschreibungen auf	ALL CEMBERSPECTRUM Clear Referenching dos Grund wortschaftes FERLER Bassenfare Fehler bei komplessen Sachverhalten/wesig vertrauten Themen & Situationen	REPERTORE & KOREKTHIIT harfig verwanden Radeflosial & Wandangen, die an der vorhandban Situationan gebunden sind) auswichtend korrikt	TEXT - museumenhingend, linear - kurne, einfache Einzelelemente	SFRACHUNICTIONEN Breites Spektreuw on Sprachfiniktionen mit gebrüschlichtes Radensitzeln SITUATIVE DIMIENSION Neutrales Raginer BOFLICHERITISCONVENTIONEN kennt wichtiges Höflichkeinkonverzionen & Unterschade zw. Sitten und Gabrüschen und handle entperchand	Schreibt zusenmenblagend. Rachbechmisen, Zeichensstrag und Gestellung mücht gemag, dass man die meintens verrichen kann.
A2	SPEKTRUMATUNKTIONEN Wortschaft auswichtend für « elementes Kommunikationsbedürfnisse » sinfache Grundbedürfnisse » sinfache Grundbedürfnisse	ALLCEMENSPECTRUM Beharmicht einen begreuten Wortschaft in Zusammenbang mit konkreten Albagebedürfbinnen.	REPERTORE & KORERCHEIT Einige eifeliche Struktung dementer/systematische Fehler (z.B. Zuitformen vernischt, kinne Subjekt- Vert-Kongrount merkent) VERSTÄNDLICHKEIT In der Regel klar, was susgedrückt werden soll	TEXT Enfachs Sitte/Wortgruppen KOSSIEKTOREN Enfachs K. wie land, laber und 'weil'	SIFAACHTANKTIONEN schnesten Sponchfustionen, z.R. Begriffung, Annde, Einladung, Entschnidigung, in sehr kurans Kontaktgesprichen BOFLICHBEITISCONVENTENNEN gebräschliche Höflichkeinformels der Begriffung und Annde	ABSCHEITHEN knrs Sätze über albigliche Themen (z. B. Wegbenchreiburgen) SCHEITHEN * knrs Writer aus mindlichem Worschaft, debei ("phoestische") Wiedergabe sicht unbedragt orthografische korniet
AI	SPEKTRUM • Elementerer Vornat an einzelnen Wörtern und Wandungen • Dabei Berng auf bestimmte konkrete Situationen	- unterhalb von A2 -	REPERTORE & KORRECTIEST einige wenige einfache gammatischer Strukturen und Satzmuter, auswendig gelent -> begrenzt beherracht	TEXT Worter/Wortgruppen KONNECTOREN Subr einfache lineure K. wie 'und' oder 'dann' bei Wörtern/ Wortgruppen	ALLGIEMEN Elementeur sozialer Kontakt (z.H. "bite" deales" ugen, nich vontailen entschaldigen) wird bergenfall BÖFLICHKEITISKONVENTIONEN einfachste alltägliche 1981 obheitstörmeln zur Begriffung / Vershechiedung	ABSCIERTHEN vortnats Worter, kurne Radevendungen (z.B. Schilder, Arrestangen) SCIERTHEN Buchntabierer Advans, Nationaliste u.a. Angaben zur Person

Andrea Abel