

Social media, Collaboration and Social Learning – a Case-study of Foreign Language Learning

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Abstract. Social media has created new possibilities for digitally native students to engage, interact and collaborate in learning tasks that foster learning processes and the overall learning experience. Using both qualitative and quantitative data, this article discusses experiences and challenges of using a social media-enhanced collaborative learning environment in case-based teaching of foreign languages. Based on social constructivism we argue that foreign language learning is an individual as well as collaborative process and cognitive processes underlying learning and in particular foreign language learning are facilitated by means of social media and especially for new generation of students. This article contributes to understanding of how best to make use of social media in an educational setting and how learning may be fostered in social, collaborative knowledge construction, sharing and building. The case-study findings indicate that collaborative learning processes that are embedded in a social media enhanced learning platform are supportive and conducive to successful problem-solving which leads to successful adult foreign language learning. Furthermore, the study reports on some of the challenges in using social media and collaborative group work for teaching and learning at university level.

Keywords: Web 2.0, collaborative learning, foreign language learning, learning, case-based teaching, social learning, cognitive processes

1. Introduction

One of the 21st century educational challenges is to cater for digitally native students (Prensky 2001), who may not be particularly academically minded. These students want to learn as efficiently as possible in order to meet society's demands of fast track graduation with a maximum of quality input and they belong to the increasingly large groups of young people who attend university. They are very pragmatic and result-oriented. According to (Biggs, 2003) this approach in studying/learning may lead to increased surface learning, which is problematic in the sense that acquired knowledge may only be retrievable for a very short period of time. (Biggs, 2003):31 argues that "surface and deep approaches to learning are not personality traits (...) as is sometimes thought, but are most usefully thought of as reactions to the teaching environment." This means that designing learning environments that lead to active participation, problem-solving, collaborative work – e.g. self-explanation to peers – may lead to more successful learning outcomes in the form of deep learning. One means of meeting these demands is to implement blended learning strategies including social media/Web 2.0 platforms that assist university students in their efforts towards acquiring new knowledge and making it retrievable for application in new contexts and forms, through collaboration, argumentation or debate. These new forms of learning supported by group work and learning communities are facilitated by social media and Web2.0 tools (wikis, blogs, etc.). In the last years international research has investigated the role of web-based learning facilitation (Cuthell, 2005; Lewis et al., 2011; Benson, 2008; Korhonen, 2004) and more recently, due to social media popularity among the young generation a relevant research issue is the correlation between social media enhanced learning platforms, learning processes, the facilitation of learners' construction of new knowledge and learning outcomes. This case study focuses on the use of social media to facilitate learning in an educational context using empirical data and socio-constructivism theory.

The central idea of social-constructivism is that knowledge construction is a social process that occurs through connectivity and collaboration with others. Constructivism postulates that human knowledge is constructed and that the learner builds new knowledge based on previous learning. In a constructivism approach to learning, the learner is no longer a simple passive receiver of knowledge; (s)he is stimulated to play an important role in constructing her/his knowledge. Learning processes may also take place through complex interactions such as games, conversations, case-based work and collaborations with colleagues and friends. In this context social learning may be defined as a more ludic form of learning (Mondahl, Rasmussen, & Razmerita, 2009; Razmerita, Gouarderes, & Comte, 2005).

Social-constructionism argues that the learning process also occurs in communities that constantly interact with the individual's constructions in the internal learning process (Illeris, 2007). As a result, foreign language learning occurs as part of a social interplay, which is influenced by the culture and communicative understandings that surround the individual learner.

Following Vygotsky (1978), we assume that collaborative learning, knowledge sharing, problem-solving and empirically based materials will assist learners in their efforts towards acquiring foreign languages and developing a broader understanding of culture. Hermansen (2005) argues that learning is accepting constant change and that learning may be a "painful" process. Acquiring a foreign language is a particularly long process which involves interaction with peers and professors, constant feedback and feed-forward towards the next learning objective. However, social media based platforms may make learning more ludic and thus enable more learners to take in the information that may change their present cognitive status into a new, reflection-based type of knowledge that may be applied in new situations (Benson, 2008; Doolan, 2007; Duffy, 2007; Mondahl, Rasmussen, et al., 2009; Mondahl, Razmerita, & Rasmussen, 2009). The project outlined focuses on an interplay between foreign language learning and Web 2.0 applications integrated in a collaborative learning platform. Based on social constructivist considerations, we would argue that new learning and teaching strategies may be designed using Web 2.0 tools (Doolan, 2007; Duffy, 2007; Mondahl, Rasmussen, et al., 2009; Mondahl, Razmerita, et al., 2009). However, in order to design new learning platforms that enhance the learning experience, educators must plan and conceptualize the pedagogical principles, the associated tools and the strategy that enable them to test their assumptions according to specific learning objectives (Mondahl, Razmerita, et al., 2009).

In order to facilitate learning, motivation is key to success. Dörnyei (2003: 614) states that "motivation is responsible for why people decide to do something, how long they are willing to sustain the activity, and how hard they are going to pursue it". During the lengthy process of mastering certain subject matters, motivation does not remain constant, but is associated with dynamically changing and evolving mental process, characterized by constant (re)appraisal and balancing of the various internal and external influences that the individual is exposed to.

Recent studies suggest that the digital generation of students learn differently from the previous generation and they are dependent on the Web for accessing information and interacting with the others (Benson & Avery, 2008). Social media and Web 2.0 applications are promising for use in the educational setting, and more considerations and evaluation studies are needed in order for "pedagogy 2.0" to be established (Benson, 2008).

In this article we investigate the use of a social media collaborative platform, a customized educational version of Podio, named StudyBook for foreign language learning in a case-based setting. We discuss how case-based learning, which focuses on interaction and co-creation of knowledge, integrated in a social media platform may enhance adult, foreign language learning in a business university context.

The article is structured in 6 sections. The following section describes the theoretical and didactic principles that underlie learning and in particular foreign language learning. Section 3 introduces the case-based foreign language learning setting and highlights the importance of collaboration and the associated social processes for foreign language learning. Section 4 provides an overview of methodology and the associated studies. Section 5 discusses selected results and findings focusing on group work discussions, the discussion content, collaboration facilitated by social media and issues related to collaboration in a virtual environment while section 6 provides a summary and a future outlook towards new social media-enhanced learning experiments and challenges.

2. Learning, Cognition and Foreign Language Learning

Efficient and *successful learning strategies* are crucial to educational success and lifelong, adult learning may successfully take its starting point in the learner's understanding of what it means to learn.

However, what is rested in the concept of learning, and how may it be defined in terms of foreign language learning? First of all, learning a foreign language resembles learning how to solve all other sorts of problems ranging from learning how to drive a car to studying astronomy. One definition of learning is "*the process*

which leads to the creation of new knowledge thus changing the learner's behaviour and his or her understanding of the surrounding world" (Lauridsen, 2004). Learning is thereby individual and process oriented in contrast to instruction, which focuses on subject matter and aims at disseminating information. Contrary to child learning, conscious *cognitive strategies* are key to adult learning. Additionally, understanding why and how for instance languages work and hearing or reading explanations may be used to monitor processes that are useful shortcuts to taking in new knowledge (Mondahl & Jensen, 1993).

Learning comprises reflection on one's own learning processes – a form of meta cognition – where the ability to stop and think about one's own learning process becomes central and adds to personal development. Additionally, it facilitates new insights and thereby raises cognitive awareness (Hermansen, 2005). For this reason, learning should be viewed as a life-long process where assimilation and accommodation processes substitute rote learning and remembering of facts (Lauridsen, 2004). However, this process is dependent on individual learning styles "*the way in which each individual learner begins to concentrate on, process, absorb, and retain new and difficult information* (Dunn & Dunn, 1999)". From this perspective learning is an individual matter and each learner has his or her own method of acquiring knowledge.

Student empowerment is discussed in (Nygaard, Højlt, & Hermansen, 2008: 36-37), who define three central concepts: *knowledge* – making sense of information - *skills* – techniques used to solve a particular problem - and *competencies* - the ability to apply one's knowledge and skills in such a way that the task at hand is solved in a way which is recognized as being competent by relevant peers. One way to enhance learning processes is to optimize it through the didactic practice of learning loops (Huczynski & Buchanan, 2007): 128), which are well suited for the social media enhanced environment, as seamless interaction and revisiting previous experiences is easily facilitated. Triple-loop learning as introduced by (Georges, Romme, & van Witteloosuijn, 1999) involves "learning how to learn" by reflecting on how we learn.

Motivation is another important factor in learning including foreign language learning – if you cannot see the *raison d'être* of learning something new, you probably will not bother to pay attention or take in new knowledge. Thus, new intake about a foreign language requires that your *affective filter* is low and that you are willing to incorporate new and sometimes conflicting information to move ahead. In terms of looking at motivation in educational settings, the aspect of time is also an essential element. During the complex processes of foreign language learning, "*motivation does not remain constant, but is associated with a dynamically changing and evolving mental process, characterised by constant (re)appraisal and balancing of the various internal and external influences that the individual is exposed to*" (Dörnyei & Skehan, 2003): 617. As a result, most learners experience a fluctuation of their enthusiasm and commitment during a learning process. In terms of foreign language learning, the establishment of a line of progression towards mastery of a foreign language implies establishing clear goals of reading competence, listening competence, presentation skills, interpersonal communication competence and writing competence.

Taking in the foreign language at all levels of competence is not always consistent with the exposure of the formal classroom or other formal, predesigned learning platforms, as the process is individual, characterised by individual learning styles and based on the needs and capabilities of the individual learner. This, however, does not mean that there are not many patterns of similarity by which foreign language learning may be organised collectively, but individualised learning platforms may serve the purpose better since individual learning patterns may be taken into account (Cuthell, 2005). In contrast to this, it is part and parcel of language learning that it takes place in collaboration with others – you cannot learn a language without hearing and reading what others produce. You cannot learn without comprehensible input, negotiation of meaning and monitoring of output (Long, 1996) so learning takes place in interaction and this must be facilitated together with individualisation in order for language learning to be as successful as possible.

Foreign language learning rests on the learner's ability to identify where the problems lie, to test his/her hypotheses in terms of language abilities vis a vis an interlocutor in a genuine communication situation and eventually to identify the knowledge gaps. Again, similar to all other learning processes, foreign language learning is a construction process where previous knowledge is used as building blocks and where matches and mismatches with previous knowledge are brought into play. However, foreign language learning processes do require a very high degree of practice as well, for which reason learners should be allowed to experience the '*flow*' that motivates and creates new impulses. As highlighted by (Rasmussen, 1999), "*We as actors are situated within a framework that contains a past, present and a future – i.e. our temporal standpoint moves*

and writes a part of the history, and creates a culture in which learning occurs". Following this, flow should be viewed as a condition in which people are so absorbed in a specific task that they forget all about time and place. Csikszentmihalyi (1991) defines flow as, "a deep and uniquely human motivation to excel, exceed, and triumph over limitation".

The next section discusses a learning platform that facilitates collective as well as individual learning and foreign language learning at the same time.

3. Collaborative Learning and Social media/Web 2.0

Social media or Web 2.0 based applications include online chat forums, wikis, blogs, social networking sites make knowledge sharing easy and unobtrusive for the individual. This type of tools facilitates communication, sharing information and online socialization. Using Web 2.0, users may easily express or share their opinions, 'think by writing', seek others' opinions and feedback and be connected with the others. Furthermore, multimedia production in form of audio (e.g. podcasting using mobile technology) or video (vodcasting, YouTube) capabilities continue to grow and offer new opportunities for teaching, learning and assessment. Using social media, students may record discussions and upload them on the platform for further knowledge sharing, assessment, reflection and feedback from peers and professors. This contextual collaboration seamlessly integrates content sharing, communication channels and collaboration tools into a unified user experience that enables new levels of productivity (Geyer, Silva Filho, Brownholtz, & Redmiles, 2008). Web 2.0 tools may shift control to the learner, through promoting learner agency, autonomy and engagement in social networks that straddle multiple real and virtual learning spaces independent of physical, geographic, institutional and organizational boundaries (McLoughlin & Lee, 2010).

Ultimately, personal knowledge management becomes possible and thus individualization together with collaboration, whenever this is called for, becomes a motivating factor that enhances knowledge acquisition, deep learning and student performance. Additionally, it enables the learner to optimize his/her management of knowledge, as (s)he is able to reflect upon his/her knowledge during the creative process According to (Chi, Leeuw, Chiu, & Lavancher, 1994) studies have shown that students' self-explanation improves the acquisition of problem-solving skills in worked-out examples thus fostering deeper understanding. In our case-study, however, this is taken a step further as students are asked to identify problems, debate, negotiate meaning and argue for their solution themselves. In terms of foreign language learning, as the acquisition of effective problem-solving, self-directed learning and team working skills is probably more important than the content learned (Barrows, 1998):631. Case-based teaching provides such problem-solving environments where students create their own learning spaces using collaborative facilities using cross-disciplinary knowledge and skills. Simultaneously, personal management of knowledge can be facilitated by Web 2.0 tools (Razmerita, Kirchner, & Sudzina, 2009) integrated into personal learning environments where different forms of knowledge exchanges and learning outcomes are possible through informal learning, self-directed learning and lifelong learning (McLoughlin and Lee, 2010).

3.1.1 Case-based language learning

Traditionally, cases have been used to highlight and discuss decision-making processes, to address problem solving procedures and issues in leadership and management. Teaching with cases is a useful tool if the goal is to experience problem solving in contexts that resemble real life situations. Students are required to familiarise themselves with both theory and case material which may include different media types. Based on the case, students are assigned different tasks, which may include writing press releases, memos, analysis and discussions of potential case solutions to the problems identified. If we accept that language learning is a construction process, where new knowledge is added through experiencing successes or the opposite in communication situations, and if we accept the notion that personal involvement and motivation are key elements in all learning, then case-based language learning is an obvious possibility and challenge for the language learner and the learning environment designer.

Research has shown that if students work with language problems in case-based Web 2.0 environment, they become more motivated for collaboration, resulting in successful planning of communication (Lill Ingstad & Mondahl, 2009). In more traditional learning environments where case work is limited to the simulation scenario and where no collaborative services are offered early on, process-oriented information sharing and learning are very limited. These findings together with a very clear focus on the language elements through

case-based teaching within a Web 2.0 enabled e-learning platform suggest that learning may be efficient if the students' attention is focused on communication oriented problem solving in a collaborative environment. A case-based learning environment may hold the following constituents which include written synchronous and asynchronous communication in a social media enhanced learning environment as presented in figure 1. Traditional classroom learning environments offer face-to-face spoken interaction but not the option of tracking the communication and learning processes, which may be reviewed by both teachers and learners. Theoretically this will enable learners to reflect and monitor their progress, learning from successes and failures.

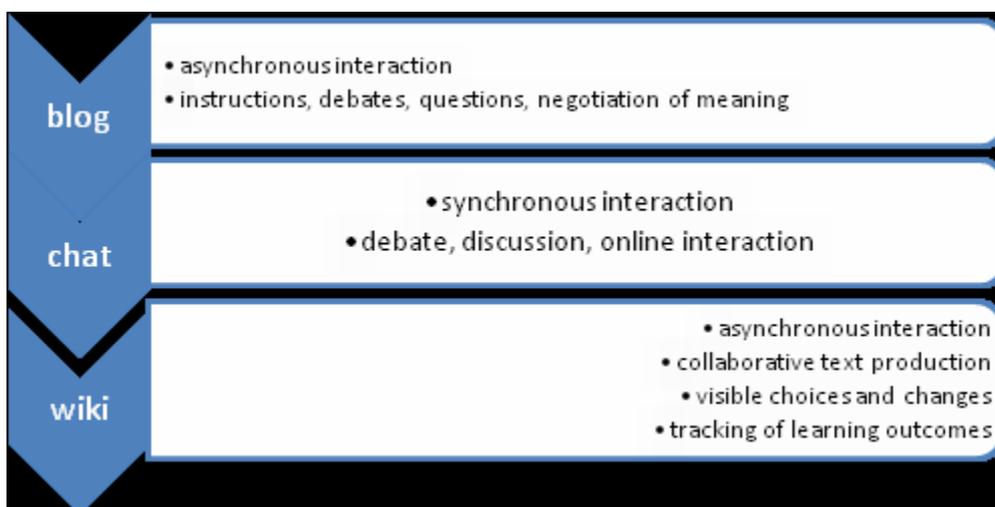


Figure 1 Social media enhanced applications for learning platforms

Cases are not new to the language learning classroom, but cases have not been used to learn languages, rather to discuss cultural, business related and political issues in intercultural business courses. In these case-based teaching classrooms, learning how to solve managerial or organizational problems or solve issues in Human Resources departments may be valuable assets to understanding differences and problems in global business, but language issues per se are not part of the package.

Interaction between classical case elements such as problem identification, analysis, problem solutions and innovative approaches to understanding for instance cultural aspects or organizational behaviour is established in language learning oriented cases. Using social media platforms the learner is taking in new knowledge through collaborative work and concrete implementation into spoken or written texts that serve as case solutions. The interface between the Web 2.0 tools and the case is characterized by the following steps as described in figure 2. The first step includes an introduction of the case including the theoretical framework, the case method and the background literature. It also includes a presentation of the Web 2.0 tools available to the students and teachers. The second step consists of group-based student interaction using the platform as well as classroom interaction.

The last step is a classroom based presentation of students' group-wise solutions including feedback from peers and teachers.

With regard to the case characteristics, the case reported in this study was a communication case which focused on problem-based student activities, language, content, terminology, genre and target audience issues and the students were required to produce a number of texts as a result of their case work. Foreign language learning with cases means that focus in the case is on decoding messages, constructing and producing new texts and on successful communication and dissemination of information.. We have to address issues in linguistics, pragmatics, discourse and culture as well as strategies that will assist the learner in understanding and producing the best texts possible in both written and spoken formats.

Having established that language learning, decoding and production are collaborative processes where meaning is often negotiated by interlocutors, we need to look at how these tie in with case-based teaching. First of all, we need to move attention away from problem-solving related to company processes and decision

making and over to problem-solving related to communication and language related problems. How is information processed if the purpose of that information processing is for instance the production of a press release for a global business? What are the issues if we need to address new target audiences, to produce texts that differ in genre, if we need to draw on intercultural knowledge sharing? cultureThe language case deals with analysis and evaluation of a communication situation where focus is on professional communication across cultures and languages. Decision-making focuses on communication strategies, on target audience characteristics and adaptation to cultural parameters. Based on these assumptions, the language case is one of the answers to adult, foreign language learning but it requires setting up a collaborative case-based learning platform where problem solving is facilitated and learners' active participation is in focus.

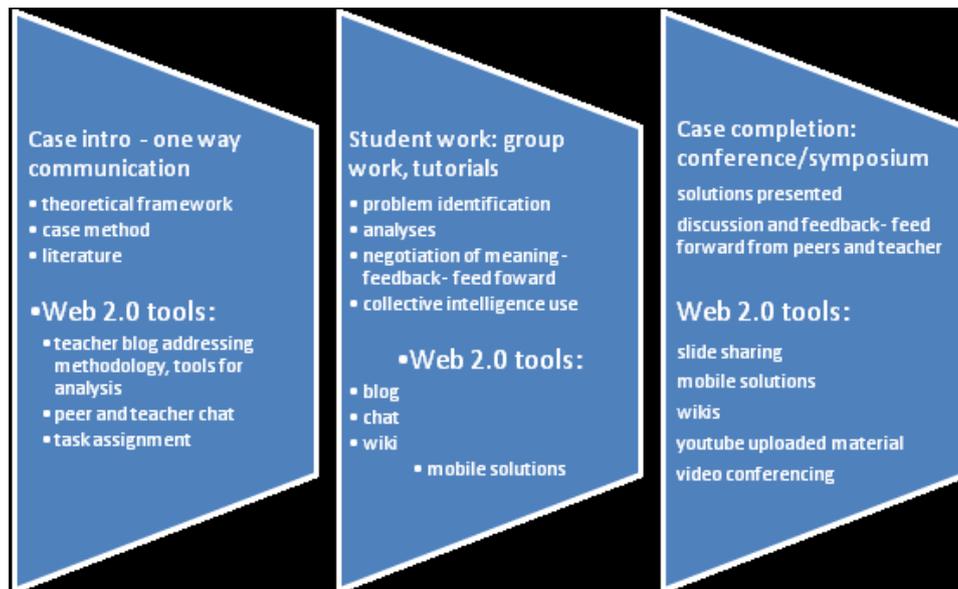


Figure 2 Case-based teaching using web 2.0 tools

As stated above, the collaborative nature of language learning means that case-based work should also facilitate online exchange of information, information sharing and information management possibilities.

3.1.2 Wikis and Learning Logs

Wikis facilitate seamless cooperation and collaborative knowledge building (Cress & Kimmerle, 2007). Knowledge can be co-created by students in synchronous or asynchronous collaboration, and furthermore traces of interaction can be tracked and used for awareness-raising and identification of changes and progress in the production of the assignment. Students' application of knowledge and collaborative work may reinforce learning processes and foster deep learning since negotiation of meaning is central to collaborative work.

Traditionally, blogs are textual but they vary widely in their content. They can be devoted to politics, sharing opinions, news, or technical issues. Using a blog, students can demonstrate critical thinking, take creative risks and make sophisticated use of language (Duffy, 2007). In terms of foreign language learning, a study by (Al Fadda H. & M., 2010) identifies blogs as useful tools in pre-class preparation and post-class reflection. Thus, blogs are used to reinforce learning processes and create a forum for students to reflect on what and how they learn.

Learning logs do not require special training – reflecting on your own processes is sufficient, especially as this increases awareness of processes and meta-knowledge of the processes experienced and features triple-loop learning. The purpose of the learning log is twofold: giving the learner an insight into his/her own processes and own problem solving strategies, difficulties overcome and new challenges that must be met and giving researchers and lecturers insights and new data on learners' processing of a foreign language in a multifaceted process that involves both foreign language acquisition and the intake of non-language related information. This information is of the utmost importance for the learner who is given access to own learning style characteristics, reflection on own cognitive processes and to the researcher/lecturer who is provided with

valuable insights into what works and what does not work for the individual learner and for a group of learners.

The learning log may facilitate reflection and enhance deep-learning by aiming to track student cognitive processes similar to think-aloud protocols and retrospection of data. The learning log thus becomes an incentive to students to reflect on their learning as well as tool to measure the success of the learning process. In the context of StudyBook using Podio, *Learning logs* have been designed to track progress, obstacles and successes. Furthermore, blogs may also be tools of identification of ‘talking points’ - points at which students negotiate meaning and innovate. Affective filters, such as the need to learn may influence learning. Accordingly, motivation may be high or low as well as successes and failures to incorporate new knowledge that change a little bit of you through a process of acquisition and may be influencing the pattern of learning experienced.

4. Methodology

This study is a follow-up on the pilot study reported on in (Mondahl, Rasmussen, et al., 2009). The results of the pilot study in regard to the motivation factor emphasized that both teacher and students were more motivated in the electronic learning platform than in the traditional case-based learning work. The results from the previous study showed that students were more successful in regard to solving assignment problems that were of a discourse or pragmatic nature than the control group, whereas the control group was more successful at the linguistic level, ie solving problems of syntax and morphology. This led the research group to conclude that – based on the pilot study – there seems to be a relationship between students’ ability to solve more complex foreign language problems related to genre, target group adaptation, script and situation adequacy if their knowledge sharing during assignment work is facilitated.

In order to test some of the central hypotheses sparked by the assumption that adult foreign language learning will be facilitated and personalized through a collaborative case-based, social media learning platform several studies were set up. The studies were developed to match the concept of a *language case, ie focus on both problem analysis and production of texts*. The research questions focused on five aspects: 1) collaboration, 2) motivation, 3) student information processing, 4) student use of methods and models introduced in the case and 5) the final results of the students’ work. Focus in the following discussion is on findings related to collaboration in a case-based study and perceived student interaction in a social media enhanced platform. The following questions are addressed:

- How does the interactive platform influence the development of pragmatic awareness and competence – knowledge and skills?
- Personalization versus collaboration strategies – which stands out as more important in the students’ learning experience?
- What is the motivational element of learning in social media enhanced environments?

In regard to the information processing and the work processes involved, it was assumed that the Web 2.0 language learning platform would lead the students to reflect more on their processes, share information early on in their assignment work, and facilitate deep-learning through focus on information processing rather than on the end result. The research assumptions were that if students were encouraged to collaborate, to share information, to use peer review opportunities, their learning outcome would be deeper, they would take in new information that would be internalised and accessible for later use as it was individualised through problem-solving and not via instruction.

The study included the following types of data: 150 students’ case-based work (fourth semester course in English Business Communication in the International Business Communication programme at Copenhagen Business School). All students followed the same course plan; one half used StudyBook as their learning platform whereas the other half used the material in a non-social media enhanced environment, i.e a traditional format with online material provided but with no pre-designed collaborative environment. For all students, the course comprised a final exam with two individual assignments: a summary in Danish of an English text and a ‘composition’ – an assignment that assesses professional business-related writing skills, genre awareness and target audience adaptation of text. The course case work aimed at enabling collective work, knowledge sharing and reflection on decisions and decision processes – both successful and less

successful ones – in order to prepare the students for individual use of the knowledge acquired during the one semester course. It should be noted that students sit for individual exams.

The following types of data were collected:

Quantitative data:

- Questionnaires – closed questions and ratings from 1-4
- Pre-test: results and grading
- Post-test: Exam grades

Qualitative data:

- Questionnaires - open question answers
- Focus group interview

Part of the questionnaires focused on general characteristics of the social media platform and part focused on special features of the case work. The questionnaire was adapted from the pilot study in terms of the evaluation of problem-solving and case-based group-work and extended to include issues on social media and collaboration. The students were asked to indicate their use of the platform for collaborative work on a four point scale from 'much' to 'not at all'

Students were asked about their case-based work. (The questions are presented in table 1). However, due to the focus of this article, questions 1, 2 and 5 have been selected for further discussion.

Questionnaire
1. To what extent have you discussed your case-based assignments and potential solutions in your study groups?
2. Have you discussed
a) solutions to language related problems
b) terminological issues/problems
c) concrete solutions
d) content related issues
3. Have you discussed methods related to case-based problem-solving e.g. the inclusion of types of resources and information search?
4. Have you searched for more general information related to the business field or the business context that you were working with?
5. Has your case-based work given you insights into real-life work in organizations and businesses? ⁱ

Table 1 Questionnaire on case-based group-work experiences

Finally, qualitative data include two focus-group interviews with students from both the StudyBook group and the control group. After a couple of ice breaker questions, the central part of the interviews focused on the following:

- Does StudyBook facilitate collaboration in groups? If so, in what way?
- Do you find the platform user friendly and easy to learn, or did you need support during the course in relation to the use of the platform/applications?
- Is there anything in the use of StudyBook which has caused problems?
- Other comments or suggestions for further improvement of the platform and/or course design, e.g. teacher/student interaction.
- Have you experienced any changes in teacher - student interaction?
- Do you think social media may be used successfully for learning and in a classroom environment? Why?

The last part of the focus group interview included general questions on Web 2.0 usage in the private sphere and suggestions for platform improvements.

The platform was used in several other courses including an oral communication course (Autumn 2009) and a course in intercultural corporate communication (Autumn 2010). These courses have also been subject to

platform evaluation and brief comments will be given on the outcomes below. However, the main focus here is on the findings and discussion related to the bachelor business communication course (Spring 2010).

5. Findings and discussion

The study reported on here has more data based on a larger group of respondents than the previous study. The pilot study gave indications of successful learning processes being facilitated by the collaborative platform and negotiation of meaning leading to successful learning outcomes as well as a higher success rate in regard to overall text functionality. The students had the option of creating ‘private’ group spaces where they discussed the assignments of the case, which were a company description, a press release and a summary. The questionnaire of the present study was answered by 75 students out of whom 44 students completed all questions, corresponding to approximately half of the student population in the test group and the control group. The number of answers is, however, slightly higher for the test group than for the control group, probably due to these students’ higher level of interest because they felt they were special as they got something out of the ordinary. The data from the questionnaire is complemented by focus group interview data enabling us to carry out analyzes based on triangulation especially in regard to motivational aspects of social media enhanced learning. The results presented below relate to the test group only and thus shows student responses from the group exposed to social media enhanced learning. The exam grade post-test data could not be made available to the research team due to restrictions on access to these data. This data would have highlighted assessed learning outcomes by external examiners.

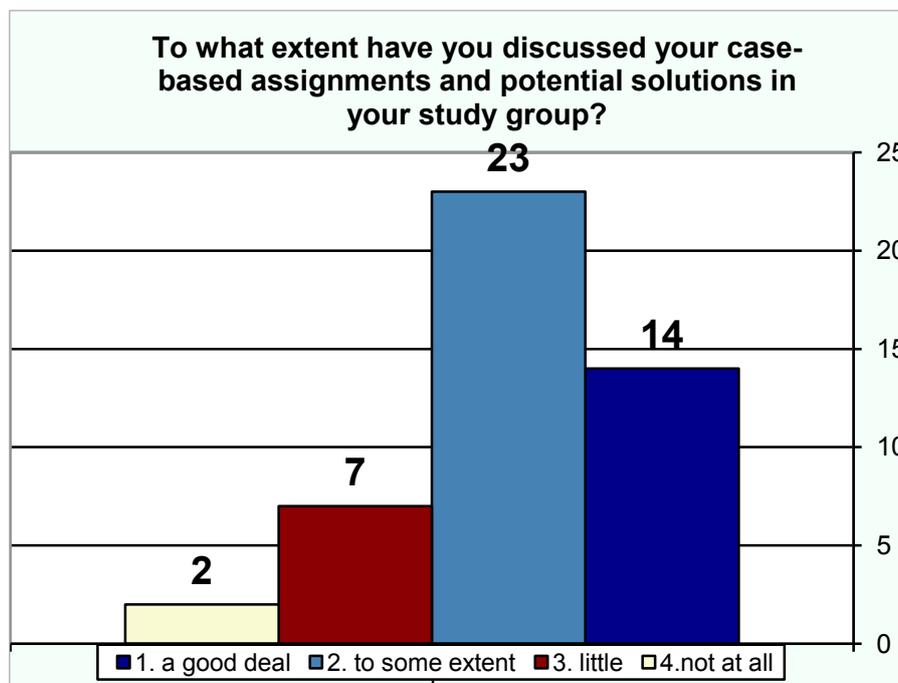


Figure 3: Students’ distribution of responses to question 1

50% of the students have discussed the assignments to some degree in their study groups and 30% have used the collaborative facilities a lot. The figure shows collaboration was central to students’ group-work activities, even though 19% reported that they collaborated a little or not at all on the assignments. Focus group interviews support these findings. As one student put it “Wikis are great, you know what is happening and it makes all group members responsible for final outcome”. And “groups may discuss how group members learn most efficiently”.

Some students however consider group work assignments “a nuisance caused by lack of educational resources” and “a negative substitute for class hours”. They prefer traditional teacher-student face-to-face interaction in the classroom and this may explain their lack of interest in using the social media platform offered. Lack of interest may also be explained by students’ lack of commitment to the group as peer contributions blur ownership and result in uneven contributions or even free-riding.

The control group showed a generally lower level of collaboration, which was expected since no formal facilities were organized for the control group and collaborative activities were not encouraged beyond that of asking the students to work in groups throughout the case-work. Other studies (Svendsen et al., forthcoming) show that students who are encouraged to work in groups where initiative and ownership is embedded experience this as empowerment, but as the assignments were fixed in this study, this could not be expected and indeed did not take place.

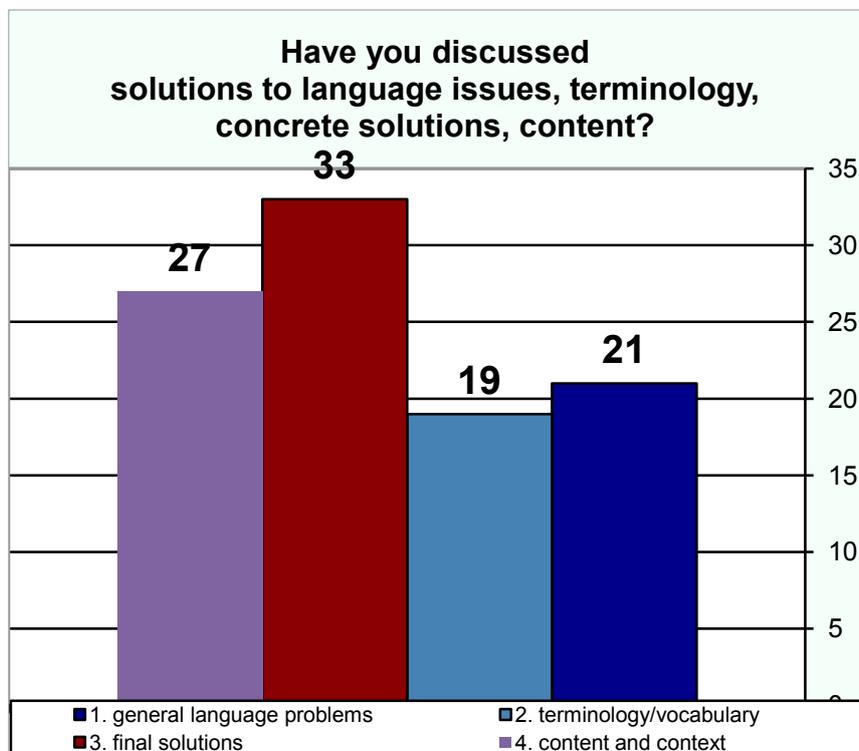


Figure 4: Students' distribution of responses to question 2

The figure shows that the StudyBook students' collaborative work centers on discussions of suggested final solutions and issues in content and text context whereas terminology and general language issues get less attention. The collaborative framework allows focus on problem-solving at the text level rather than at the very detailed word or sentence level, thus supporting overall text production competences rather than detailed syntactic or vocabulary-related problem-solving. More students have answered this question and this may be because students focus on finding concrete solutions and reflect less on their collaboration processes. Focus group interviews support this finding and emphasize students' end result orientation. However, this may lead to more successful solutions as focus in communication assignments is simultaneously geared towards target audience expectations and texts as messages rather than normative language assignments. Final grading takes into account the successful completion of the assignment in terms of communicative effect and intercultural awareness. The distribution in the graph may indicate that students have different needs and use collaborative opportunities differently. This is clearly a didactic challenge for course designers and developers, students expect their work to be laid out for them in relatively small, manageable chunks and find more holistic approaches more demanding. On the other hand, students express satisfaction in regard to personal empowerment, when this is facilitated. This contradiction between personal empowerment and a disinterest in taking charge of educational opportunities seems to be one of the core challenges of 21st century university education.

Focus group interviews highlight an interesting feature of students' perception of collaborative work: some students perceive ownership of ideas as blurred in social media facilitated work and the fact that students are individually assessed in exams adds to potential frustrations and lack of willingness to cooperate. Even though wiki-based collaborative work enables seamless joint production and revision of assignments not all the students engage and dare to use this tool as intended. Some students are more interested in blogging with the teacher about issues in comprehension and in sharing knowledge at early stages of task completion and these

activities may add to their negotiation of meaning, but whether this adds to their knowledge intake for later use is unclear. Students may hesitate to correct peers because of ownership issues, lack of trust in their capabilities, lack of interest or even lack of knowing how a wiki works.

Based on the focus group interviews that were carried out, it is clear that students' perception of StudyBook is that wikis and blogs are easy and intuitive to work with and they make learning easier and seamless. Wikis are excellent for drafting of documents and revisions by peers, but language issues are left alone by peers, who concentrate on issues related to content rather than language, as language issues are considered too personal and intrusive in regard to fellow students' competencies. In other words: there is a face-issue involved here which must be dealt with as students are not particularly willing to "invade each other's turfs" when it comes to correcting/discussing/making changes to language. Feedback/feed-forward from teachers is enhanced and harnessed in the platform and the private group fora serve personalised and group-wise feedback very well, thus adding to motivation and personal empowerment. The Web 2.0 based stream of activity supports interaction and may prompt others to engage in discussions and knowledge sharing. The unlimited access is a great advantage and the calendar and tasks functions are effective tools for collaboration.

Students have trouble seeing the relevance and importance of learning logs, which were supposed enhance self-reflection, monitoring and awareness of processes. They would like a chat-function and stress that tasks and assignments must match the platform set-up. Individual work is not supported and plagiarism is feared thus leading students to be mere spectators of others' work. Data from another study, presented in (L. Ingstad, Smedegaard Mondahl, Rasmussen, & Pals Svendsen, 2011) emphasize students' lack of interest in lack of motivation in regard to using learning logs. The platform is time-consuming and requires (too much) activity and a serious problem appears to be absenteeism, non-participating students, lack of preparation and that group-wise work is considered as a negative educational feature aimed at saving money.

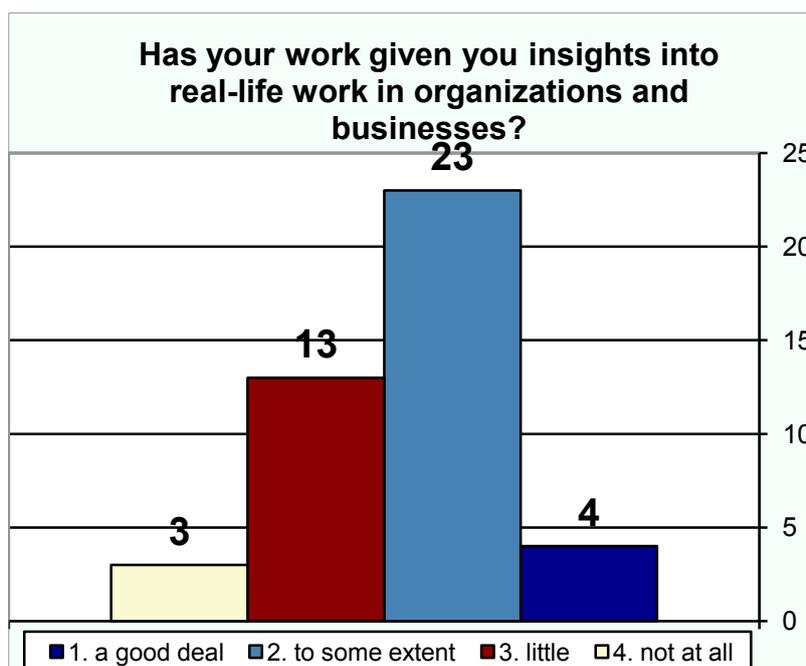


Figure 5: Student s' distribution of responses to question 5

In the context of the case-based work, a majority of the StudyBook students believe that it brings them closer to real life work in organizations and businesses. In regard to the level of activity it ranged from very little to effective use of StudyBook. Very few students were active throughout the course – and peak activity was close to hand-in deadlines. Q & A options in the form of blogs are used very effectively by some students, but the main problem is a lack of active student involvement in learning processes and much focus on assignment completion and exam, which is individual, but requires massive intake and application of new information from course material and course assignments. The challenge is the design of assignments that match exam requirements and students expectations as motivation otherwise decreases. It is clear from the data that some students have to make an effort to get to know how the platform works, but even for students who do not consider themselves digital natives it is intuitive and easy to work with. Student motivation is clearly supported by their experience of the platform offering something that looks like a real life platform used in the business

community, but it is not enough to make the majority of students work with a platform that does require some initial groundwork to get to know the facilities offered.

5. Conclusions and Outlook

Currently most platforms are organized as content/course management systems (CMSs) and do not make use of the real potential of social media (McLoughlin & Lee, 2010) whereas StudyBook as a social media enhanced learning platform offers more social and collaborative facilities that may harness and enhance learning processes based on new forms and types of interaction. The article has introduced case-based foreign language learning facilitated by the StudyBook platform that supports social learning as well as individual learning. Based on socio-constructivism theoretical considerations and the empirical study results, the following challenges have been identified: the setting up of new foreign language learning assignments that allows students to interact synchronously online, collaborate and share knowledge in all phases of the process is key to learning facilitation. The production of a foreign language text using the platform as the natural format for interaction is more motivating than the more traditional group work, which relies on one person doing the writing and the rest of the group chipping in their contributions as discussions proceed.

The results indicate that motivation and collaboration influence the quality of students' work, that the social media enhanced platform is a facilitator for collaboration and of knowledge sharing and that end results improve as students' focus is targeted towards problem-solving that may be generalized to other assignments instead of local, surface knowledge that is not re-usable in new contexts..

The research question focussing on *how the interactive platform influences the development of pragmatic awareness and competence – knowledge and skills?* is answered through the study's qualitative as well as quantitative data which show online discussions in the study groups have been utilized to some extent by the largest number of students. The qualitative data support this student feeling of collective intelligence that adds to the overall solution to the assignments. Furthermore, in regard to question 2 on final solutions and content related issues shows a pragmatic and discourse focus in the students' work and a lesser focus on language issues per se – syntax, morphology, vocabulary etc.

On the research question focusing on *personalization vs collaboration strategies – which stands out as more important for the students' learning experience?* Students' focus is on the collaborative element, but with a view to enhancing personal competences. It is clear from the focus-group interviews that the students rate language competence achievement as a personal success and they are keenly aware that plagiarism abounds. This is a key problem to using collaborative platforms for knowledge sharing and knowledge building and it should be further addressed in studies that focus particularly on group formation, group identity and personalization.

In regard to the motivational element of learning in social media enhanced environments, students are motivated by the efficiency and seamless interaction offered by the platform, but they are discouraged by the lack of a synchronous chat and the feeling that only some tasks lend themselves naturally to the kind of knowledge sharing offered by social media platforms. More research must be carried out to investigate the social media functionalities vis á vis different types of communicative oriented tasks. Do cultural issues and issues in overall communication lend themselves more easily to the medium than discussions and knowledge sharing related to syntax, correctness, target group orientation etc?

On the last question, students agree that they have become more knowledgeable on how businesses function in the real world, away from the educational setting, where mistakes are allowed and where the learning outcome from testing hypotheses is a key factor. Students are keenly aware that a future job will demand that they act globally, in multicultural settings where cultural and language-related knowledge is central to communication; they are also aware that knowledge sharing is necessary in increasingly complex organizations and this may contribute to motivation and willingness to interact beyond the need for acquiring course-related knowledge.

The assumption behind the study is that the case-based learning platform integrating Web 2.0 tools supports deep-learning of foreign languages and the intake of new words and knowledge that will be turned into new, re-usable knowledge, as students are made aware of their own processing and successful roads to intake. It supports analysis and problem-identification through phases of negotiation of meaning and discussions of solutions. This means that reflection that supports and reinforces learning must be part of the case-based learning setup. The learning log is one answer to this – but not just a haphazard description of what the students did and did not do; this part of the learning process needs awareness-raising elements that will provide new insights to the individual student and enable the student to understand and benefit from the strong elements of his or her learning style. Here, reflection questions may enhance students' learning log use and self-understanding.

The design of appropriate learning activities is a key element in further development of the learning platform together with a more social, user-friendly interface which allows students to collaborate, share information, experiences and connect through synchronous and asynchronous communication services. In the new version of the platform, the students will be offered the possibility to present critique and comment on the other student's work, be able to collect and share references and materials that are relevant for their portfolio assignments, to assign tasks to each other and to make use of mobile solutions, video conferencing and podcasts. We expect that using the platform the students will acquire communicative, critical and collaborative skills that are useful both for scholarly and professional contexts.

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References

- Al Fadda H., & M., A.-Y. (2010). Using web blogs as a tool to encourage pre-class reading, post-class reflections and collaboration in higher education. *US-China Education Review*, 7(7), 100-107.
- Barrows, H., S. (1998). The Essentials of Problem-Based Learning. *Journal of Dental Education*, 63(9), 630-632.
- Benson, V. (2008). Is the Digital Generation Ready for Web 2.0-Based Learning? Paper presented at the The Open Knowledge Society: A Computer Science and Information Systems Manifesto: First World Summit on the Knowledge Society, Wsks 2008, Athens, Greece, September 24-26, 2008. Proceedings.
- Benson, V., & Avery, B. (2008). Embedding Web 2.0 Strategies in Learning and Teaching. In M. Lytras, De Pablo, P., O. (Ed.), *Web 2.0: The Business Model*. USA: Springer Science and Business Media.
- Biggs, J. (2003). *Teaching for Quality Learning at University*, second edition: Open University Press.
- Chi, M., Leeuw, N., Chiu, M., & Lavancher, C. (1994). Eliciting Self-Explanation Improves Understanding. *Cognitive Science*, 18, 439-477.
- Cress, U., & Kimmerle, J. (2007). A systemic and cognitive view on collaborative knowledge building with wikis *International Journal of Computer-Supported Collaborative Learning*, Springer New York, 3(2 / June, 2008), 105-122.
- Csikszentmihalyi, M. (1991). *Flow: The psychology of optimal experience*: Harper, UK.
- Cuthell, J. P. (2005). Beyond Collaborative Learning: Communal construction of knowledge in an online environment. Paper presented at the Web Information Systems and Technologies, Miami.
- Doolan, M. (2007). Using Web 2.0 Technologies to Engage With and Support the net Generation of Learners. Paper presented at the Proceedings of the 6 Conference on eLearning, ECEL, Copenhagen, Denmark.
- Duffy, P. (2007). Engaging the YouTube Google-Eyed Generation: Strategies for Using Web 2.0 in Teaching and Learning. Paper presented at the European Conference on ELearning, ECEL 2007, Copenhagen, Denmark.
- Dunn, R., & Dunn, K. (1999). *The complete guide to the learning-styles inservice system*. Needham Heights, MA: Allyn & Bacon.
- Dörnyei, Z., & Skehan, P. (2003). Individual differences in second language learning. *The handbook of second language acquisition*, 589-630.
- Georges, A., Romme, L., & van Witteloosuijn, A. (1999). Circular organizing and triple loop learning. *Journal of Organizational Change Management* 12(5), 439-454.
- Geyer, W., Silva Filho, R. S., Brownholtz, B., & Redmiles, D. F. (2008). The Trade-offs of Blending Synchronous and Asynchronous Communication Services to Support Contextual Collaboration. *Journal of Universal Computer Science*, 14(1), 4-26.

- Hermansen, M. (Ed.). (2005). *Relearning*. Kobenhaven: Danish University of Education Press and CBS Press.
- Huczynski, A. A., & Buchanan, D. A. (2007). *Organizational Behaviour*. In F. P. Hall (Ed.). London.
- Illeris, K. (Ed.). (2007). *How We Learn-Learning and Non-learning in School and Beyond*. New York: Routledge.
- Ingstad, L., & Mondahl, M. (2009). The electronic language case. In C. Press (Ed.). Copenhagen: Copenhagen Business School.
- Ingstad, L., Smedegaard Mondahl, M., Rasmussen, J., & Pals Svendsen, L. (2011). Sociale medier som læringsredskaber. *Dansk Universitetspædagogisk Tidsskrift* nr. 10, <http://www.dunet.dk/tidsskrifter/dut10>. Retrieved from
- Lauridsen, O. (2004). Learning Styles in ICT based and ICT supported learning: a Foundling? *Emerging Technologies in Teaching Languages and Cultures, Language on the Edge: Implications for Teaching Foreign Languages and Cultures*, 4(San Diego, California), 133-145.
- Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bahtia (Eds.), *Handbook of Second Language Acquisition* (pp. 413-468). New York: Academic Press.
- McLoughlin, C., & Lee, M. J. W. (2010). Personalised and self regulated learning in the Web 2.0 era: International exemplars of innovative pedagogy using social software. *Australasian Journal of Educational Technology*, 26(1), 28-43.
- Mondahl, M., & Jensen, K., A. (1993). Lexical Search Strategies in Translation. *Meta*, 41(1), 97-114.
- Mondahl, M., Rasmussen, J., & Razmerita, L. (2009). Web 2.0 Applications, Collaboration and Cognitive Processes in Case-based Foreign Language Learning. In M. Lytras (Ed.), *2nd World Summit On The Knowledge Society, WSKS 2009* (Vol. LNAI 5736, pp. 98-107). Crete, Greece: Lecture Notes in Computer Science, Springer-Verlag Berlin.
- Mondahl, M., Razmerita, L., & Rasmussen, J. (2009). Social software, Thinking Styles, Personalization and Case-based Foreign Language Learning: The Quest for new Pedagogical Models in Higher Education. Paper presented at the 8th European Conference on e-Learning, Bari, Italy.
- Nygaard, C., Højlt, T., & Hermansen, M. (2008). Learning-based curriculum development. In G. Harman (Ed.), *Higher Education* (Vol. 55, pp. 33-50): Springer Science+Business Media.
- Rasmussen, J. (1999). Mesterlære og den almene pædagogik. In K. K. Nielsen, S. (Ed.), *Maesterlære: Læring som social praksis*. Kobenhaven: Hans Reitzel.
- Razmerita, L., Gouarderes, G., & Comte, E. (2005). Ontology-based User Modeling and e-Portfolio Grid Learning Services. *Applied Artificial Intelligence Journal*, 19(Learning Grid Services), 905-931.
- Razmerita, L., Kirchner, K., & Sudzina, F. (2009). Personal Knowledge Management: The Role of Web 2.0 tools for managing knowledge at individual and organisational levels. *Online Information Review*, 33(6), 1021-1039.
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