

Last Name	First Name	Matriculation Number

Exam CSCW

June 18th, 2015

You have **90 minutes** to work on the exam. You can reach up to **90 points**. The information on points provided with each question gives you a hint on how much time you should invest to write an answer.

You can give the answers to the exam tasks either in English or in German. **All of your answers have to be in one and the same language throughout the whole exam.**

Do not use your own paper sheets, but only the ones provided in the exam.

Please, put matriculation number on **each** paper sheet.

If you have to make any assumptions, highlight and/or describe them accordingly.

Good luck!

Section	1	2	3	4	5		Σ
Points possible	25	20	15	10	20		90
Points reached							

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Section 1:
Communication in Dyadic Collaboration
(25 points)

Question 1.1
(4 points)

Below you will find the model proposed by Dix (1993) to describe how communication emerges if a shared artifact of work is included in a collaborative situation.

As you can see, some of the arrows/connectors originally included in the model are missing. Please, draw them in accordance with the model and label them with the provided terms to make the model fully complete.

Labels of the missing arrows/connectors:

- (1) Communication
- (2) Control
- (3) Deixis
- (4) Feedback
- (5) Feedthrough

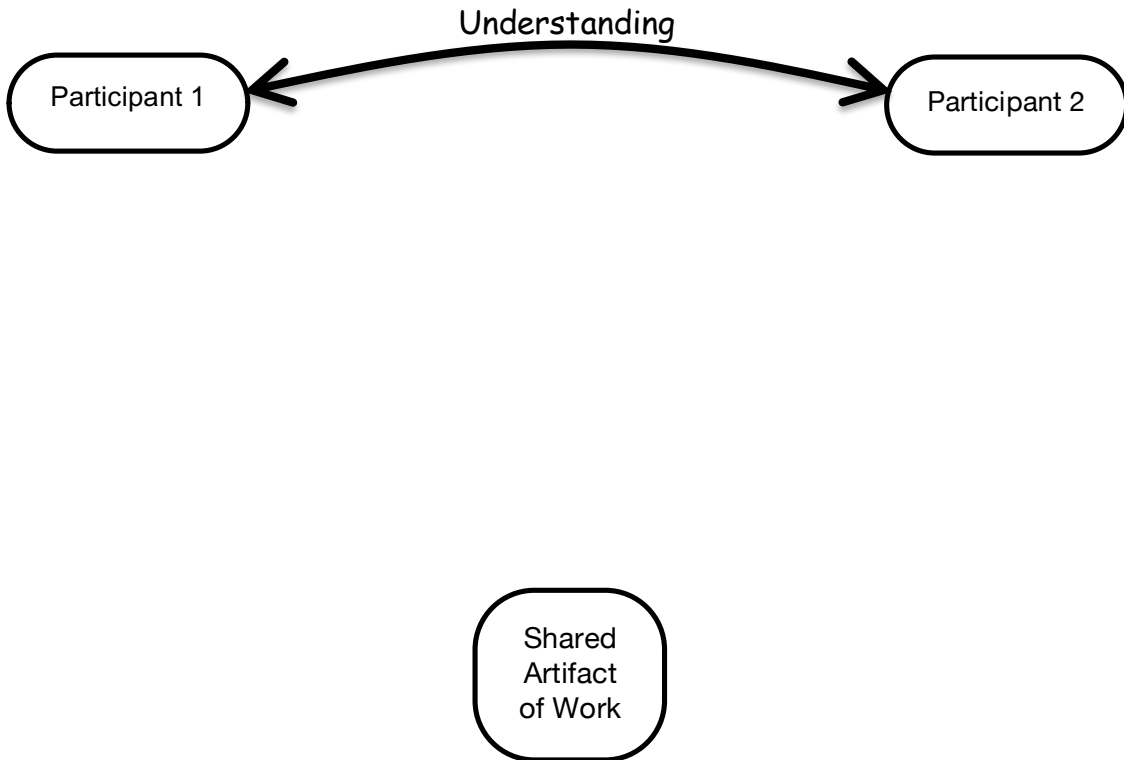


Figure 1. People-Artifact Framework by Dix(1993).

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Question 1.2

(7 points)

While using the model proposed by Dix (1993), describe the role of a shared artifact in a co-located advisory service supported with a single display groupware.

Discuss how the shared artifact influences the mental model of the advisor and the client.

Question 1.3

(9 points)

Today's advisory services, e.g., at the bank or in the city council, are designed as co-located, synchronous meetings between the advisor and the client. Benefits of such communication mode are clear: availability, flexibility, fast feedback, etc.

However, synchronous collaboration may also cause several problems.

List three problems characteristic for synchronous communication in collaborative settings. For each of the three problems provide a short description of a situation that exemplifies its occurrence in the context of advisory or counselling services.

You can refer to situations from the videos from the first homework, to your personal experience, or to hypothetical situations that illustrate the problem.

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Question 1.4

(5 points)

The design of IT-based advisory service support systems aims at tackling the problems of co-located collaboration. Often, the tools are designed in a specific way to provide affordances that support the advisor and the client at making valuable contributions to the ongoing collaboration. In the lecture, we discussed several affordances of specific support systems in the area of advisory services.

Explain how you understand the term *affordance* – for doing so you can use the example of a mug as introduced in the lecture. Other examples are also OK.

Shortly describe an example of affordance provided by any of the advisory service support systems we presented in the lecture.

Section 2: The Nature of Group Work (20 points)

Consider the following for this section: In the lecture you learned that some models of collaboration assume the development in collaborative groups to be of a sequential nature (e.g., Tuckman (1965)), while others argue for highly dynamic nature of group processes (TIP-Theory). At the same time, we discussed two contrary views on the design of collaboration and the role of IT therein: pre-structuration approaches follow the view that IT shall structure the collaboration and argue for prescriptive role of artifacts, while others see IT as an element of work practices and call for embedding of IT in the existing context.

Question 2.1

(6 points)

As an example for a sequential model of collaboration deals the process model proposed by Tuckman (1965). He identified four phases of group work: (1) Forming, (2) Storming, (3) Norming, (4) Performing. Shortly describe each of the developmental phases introduced by Tuckman (1965). In particular, consider the chronological dependency between the phases, which is taken as a premise for this model.

Forming -

Storming -

Norming -

Performing -

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Question 2.2

(4 points)

The above model, even if at first may seem intuitive, has several drawbacks. A central one is related to the definition of *phases of collaboration*, which are in this model assumed to be conceptually and timely disjunctive as well as sequentially ordered entities.

Discuss how such definition of a phase differs from the concept of a *mode of collaboration* as introduced by the TIP theory.

Explain why a phase-based model may not be the most appropriate way of describing collaboration.

Question 2.3

(10 points)

Consider the following case:

Imagine that a friend of you has designed a support tool for co-located group work. It is quite innovative, as it analyses the communication and collaboration of small groups on the go. Based on such analyses, the software detects the current phase of the group work, knows when the team should switch to the next phase and provides tailored tools for this phase. The system displays a recommendation on when to switch to the next phase according to the Forming-Storming-Norming-Performing model and thereby governs the team collaboration.

What is your assessment on this tool?

Do you think, it will positively influence the collaboration?

When discussing this question, you may find it helpful to refer to the following concepts presented in the lecture: collaboration engineering, pre-structuring of collaboration with speech acts, Heidegger's equipment and substance, enforced vs. casual process transparency, etc.

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Use it for your answers.
Indicate the number of the question.

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Section 3:

Technology Acceptance in Organizations

(15 points)

Question 3.1 (6 points)

Consider the following story:

It's year 2017. Marc, who graduated from 2013's CSCW lecture has established a start-up and developed an e-learning system for the Department of Informatics. Before selling the system to the university, he decided to collect some opinions about his product. He asked a group of experts from a local consulting company to assess his system. The outcome was very positive: the perceived usefulness and the perceived ease of use were assessed as very good. A test with a group of students confirmed this result. Marc was sure, that his system would find a wide acceptance at the Department of Informatics. He was imagining each student and each professor as being ultimately happy after getting rid of OLAT...

Shortly illustrate the TAM (Technology Acceptance Model). In your own words, explain the relationships between the constructs within TAM and clarify Marc's way of reasoning.

Question 3.2 (9 points)

Consider the second part of the above story:

It's year 2019. Marc's attempt to promote his own system as a replacement of OLAT at IFI failed. Evaluation results were disappointing: Even though students appreciated ease of use and they acknowledged that the available functionality was useful – it was not clear to them when to use this platform and, consequently, there were not enough other students who wanted to use it. Professors complained too as they could not integrate the system into their routines. In the interviews with the users Marc realized what the actual problem was: even though he took care of the technical side of the project, he did not invest enough in being a proper and solid implementer in the context of IFI.

Discuss three other factors that would help Marc understand what he should take into account when implementing a system in the given context and situation.

Why did the original assessment based on TAM did not suffice in this case?

Section 4:

Appropriation of Collaboration Platforms

(10 points)

Consider the following for this section: The implementation of a collaboration platform is a challenge. While answering the following questions, refer back to the case study of Yammer@Capgemini (Homework 3) and illustrate how this was not only a pure technical implementation, but also a whole appropriation process.

Question 4.1

(4 points)

Explain the term appropriation in your own words and why it is necessary to consider people's practices in the case of Yammer.

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Question 4.2

(6 points)

Discuss at least 3 examples that show how the implementation of malleable end-user software is different from implementing purpose-specific software. Thereby refer to particular episodes from the case study or other cases presented in the lecture.

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Section 5:

Sociotechnical Design in Online Communities

(20 points)

Consider the following for this section: In the lecture, we discussed a number of theories and models to explain user behavior in an online community. We also see various examples how to sociotechnically designing such online communities on a way to address users' needs and avoid problematic behavior.

Question 5.1

(5 points)

Explain the term sociotechnical design.

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Question 5.2

(15 points)

Freely choose a crowdsourcing platform. Briefly introduce the platform purpose.

Then explain how the designers of this platform addressed the design requirements regarding behavioral needs of the users. Refer to at least four distinct design requirements discussed in the lecture.

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Use it for your answers.
Indicate the number of the question.

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