Last Name	First Name	Matriculation Number

# Exam CSCW

### June 22nd, 2017

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 your answers must 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 your last name on **each** paper sheet.

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

### Good luck!

Section	1	2	3	4	5	Σ
Points possible	12	18	20	24	16	90
Points reached						

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#### **Section 1:**

## **Research Perspective** on Collaborative Technologies

(12 points)

#### Question 1.1

(12 points)

Collaborative software addresses a whole range of scenarios, in which people can cooperate. Research proposes to classify those scenarios and their respective technologies along the dimensions of time and place.

Fill out the gaps in the model below. Where possible, refer to the specific software systems presented in the lecture or in the exercise. Do not forget to explain the meaning of terms printed in italics.

	Synchronous	Asynchronous
	=	=
Co-located =	ab	Electronic work shifts book
<i>Distributed</i> =	ab. c. Clearboard	ab

Last Name

#### **Section 2:**

## **Supporting Advisory Service Encounters** (18 points)

Consider the following: In the lecture, we extensively discussed several systems designed to support advisory services (citizens' advisory service, travel advisory service, financial advisory service, burglary prevention counseling, etc.). In your first homework, you worked with data from mortgage advisory services in an IT-supported and pen-and-paper setting. While there is a substantial improvement in designing systems for advisory services and some are applied in practice (as in the burglary prevention), still many institutions and advisors are reluctant to employ modern technologies in their encounters and stick to paper.

#### Question 2.1

(10 points)

Discuss the persistence of paper while addressing paper's advantages over single display groupware and/or advisors' concerns regarding modern technologies. List and shortly explain four different reasons for paper and pen remaining the dominant technologies in current advisory service encounters.

1.

2.

3.

4.

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#### Question 2.2

(8 points)

Nevertheless, traditional, pen-and-paper advisory service encounters have several problems: (1) advisors need to spend additional time to input the client's data and the recommendation into a system for further processing by their institutions, (2) the documentation of the advisory process is scarce thus reducing potential for regulation, quality management, and standardization, (3) clients expect modern and digitalized services connected seamlessly with other communication channels (e.g., their e-banking or travel booking system).

Propose and describe a solution which enables to connect the advantages of pen and paper with the advantages of a digitalized service. What technologies do you employ for your solution to work? List the advantages of paper and the advantages of IT that your solution combines.

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ndicate the number of the question you are answering below.	

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#### **Section 3:**

## Addressing Negative Group Effects with and without IT

(20 points)

**Background story:** ICU decided to organize a brunch in the Mensa at the IFI, where ICU members and IFI students can meet potential employers from the nearest neighborhood (Credit Suisse, AXA, Sympany, etc.). Todd, Lisa, and Bart were designated to organize the brunch. We join these three students when they meet in a workshop room to discuss potential catchy names for the brunch. Read the excerpt from their discussion to answer the questions in this section.

```
1
2
      @Begin
      @Languages:
3
                       BART Student, TODD Student, LISA Student
      @Participants:
4
5
      @Options:
                        CA
               eng|icu-corpus|BART||male|||Student|||
      @ID:
      @ID:
               eng|icu-corpus|TODD||male|||Student||
6
7
               eng|icu-corpus|LISA||female|||Student|||
      @ID:
8
      *BART:
               oh: c mon lisa (.) goon wit yo stu:ff
10
               BART rests his head on both hands, TODD sits straight at his table,
      %act:
11
               LISA stands next to the whiteboard with a pen in her right hand
12
      %fac:
               BART rolls his eyes, LISA lowers eyes
      *LISA:
               well: we ve ga∙ gahterd here to discuss ≯dee ≯names
13
      *TODD:
               「yea 1
15
      *BART:
               LvawJ
16
               BART does as if he was yawning, TODD does not move, LISA turns
      %act:
17
               towards the whiteboard and starts writing on it
              let s ma:ke some suggestions (0.5) na:ch:ba:r:s:tre:f:≋
LISA writes down "Nachbarstreff" while spelling out each syllable
18
      *LISA:
19
      %act:
      *LISA:
20

≈ then (0.3) hhh (.) i:n·fo:rma:a:ti:k·bru:u:nch

               LISA writes down "Informatikbrunch" while spelling out each
21
      %act:
22
               syllable, TODD watches LISA writing, BART takes out a chocolate bar
               out of his pocket and opens it while generating noise, TODD looks
24
               shortly at BART then back at LISA
               BART looks at the chocolate bar and lickes his mouth, TODD rumples
25
      %fac:
26
               his face as if he was disgusted
27
               yuu: need to take food serio:usly (.) ≯lis
      *BART:
28
      %act:
               BART starts eating, LISA continues writing, TODD keeps smiling and
29
               looks at LISA
30
      *BART:
               hmmmmmmm: h. de:li[ciou:s]
31
      *LISA:
                                        J we ca:n take ai:ci:u:⋅ga:r:te:n:pa:r:ty:
                                  Lo:r
               LISA writes down "ICU-Gartenparty" while spelling out each syllable
32
      %act:
33
               TODD claps his hands, BART chews such that others can hear it
      *TODD:
34
               bra:vo li:sa we have a ⊘na:me h• yu: r n genius
              yu: r n genius (.) yu: r n genius≋
BART repeats TODD's words while chewing the chocolate bar and
35
      *BART:
36
      %act:
37
               smacking from time to time, BART moves his head from left to right
               and back, LISA smiles first but then looks at BART and ripples her forehead, TODD rotates his head from LISA to BART and back
38
39
      *BART:
               and wa:t about ⊘e:nglish speakers (.) hum (.) ⊘miss ⊘ge:nius (0.5)
               maybe: next do:[r brunch ]
41
42
      *LISA:
                               Li go:t it] (.) fnext door fparty:
43
      %act:
               BART lays back, puts his legs onto the table in front of him, turns
44
               his head towards the window, LISA notes down "ICU next
45
               door party" on the whiteboard, TODD claps his hands
46
      *BART: yu: r n genius (.) yu: r n genius [% said in low voice]
47
      @End
48
```

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#### Question 3.1

(6 points)

The collaboration between Lisa, Todd, and Bart has several problems. List and specify two unwanted group effects they encounter. Justify your choice by referring to specific behaviors from the above transcript (you can use line numbers for easier reference).

**Negative Group Effect A:** 

**Negative Group Effect B:** 

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#### Question 3.2

(14 points)

In the lecture, we discussed options to prevent unwanted group effects. Propose and describe an IT-based solution and a non-IT solution to improve Lisa's, Bart's, and Todd's collaboration upon the catchy name for the ICU's brunch event. A solution may be, e.g., a software system with an adequate procedure, a technique using traditional materials (post-its, pens, etc.) or some software, a thinklet including information on when and how to apply it, a specific suggestion on how to redesign the meeting, etc. Justify your answer.

#### IT-based solution:

- ... helps preventing Negative Group Effect A, because...
- ... helps preventing Negative Group Effect B, because...

#### Non-IT solution:

- ... helps preventing Negative Group Effect A, because...
- ... helps preventing Negative Group Effect B, because...

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#### **Section 4:**

## **Engineering Collaboration in Large Groups** (24 points)

Consider the following: During the lecture and during homework, we introduced the collaboration engineering approach. It relies on the assumption that collaboration activities can be predefined and scripted in a way that (almost) guarantees for the desired output. We have extensively discussed the underlying concepts (six-layer model of collaboration, thinklets, facilitator) in the lecture and you had an opportunity to apply your knowledge in Homework 3. You, also, participated in a ThinkTank session. While taking together all your expertise from all those sources, please, solve the following tasks.

**Background story:** ICU at the University of Zurich organizes a meeting to plan their activities for the year 2018. From their previous experience, they know, that there are four time slots throughout the year where most students would attend to their events: always shortly after the beginning of the semester and, then, before the exams period. However, they have lots of ideas and all seem ingenious.

#### Question 4.1

(14 points)

Help ICU prepare a workshop to plan the year 2018. Annatina has already started preparing a plan for the workshop for the ICU management group – help her with specifying the plan.

Provide additional justification for your choices in the fields marked with  $\mathscr{A}$ .

If you are struggling with the collaborative behaviors, have a look at the set of relevant ThinkLets provided on the separate sheet of paper entitles "ThinkLets for Question 4.1" (no need to employ all provided ThinkLets; you are also allowed to create your own ThinkLets – to do so provide the *overview*, *inputs*, and *outputs*; you are also allowed to combine the ThinkLets to one collaborative behavior).

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Layer		Con	tent
Collaboration Goals	To plan activities for 2018 and assure commitment from the team		
Group Products	A list of four events with highest marketing potential to be organized during 2018 with a preliminary assignment of responsibilities to team's members		
Group Activities			Preliminary specification of responsibilities
Group Procedures	A.	Reduce to 4 best ideas and Clarify them (especially with regard to marketing potential)	B
Collaboration Tools (conventional, non-IT)		3 stickers per team's member to be distributed across ideas	
Collaborative Behaviors		C	DØ

A. -

B₽ -

C .

DØ -

Last Name	

Last Name

#### Question 4.2

(10 points)

Annatina has made her plans without considering software tools and limited herself to post-its, pens, paper, whiteboard, etc. However, CSCW offers dedicated software systems for collaborative problem solving and decision taking.

- a. What are the main differences between Group Support Systems and Decision Enhancement Systems?
- b. Which of these system types better suites the ICU scenario in Section 4? Motivate your answer.

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ndicate the number of the question you are answering below.	

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### Section 5: Social Networks (16 points)

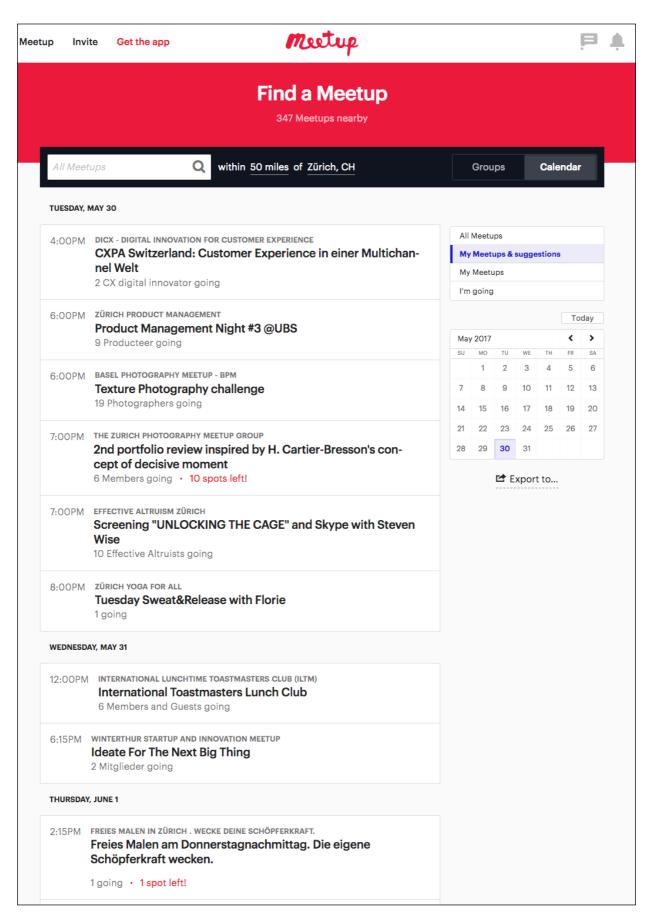
This section focuses on analyzing design principles of a growing social network called "meetup" (www.meetup.com). The basic idea of "meetup" is to bring together people sharing professional or leisure interests and facilitate offline group meetings between them – the offline meetings are called *meetups*. Groups of people who engage in a set of activities are called *meetup groups* in the jargon of the provider, people who engage in a group are *members*.

On the next pages, you will find four screenshots from the "meetup". The screenshots feature the following:

- Figure 1: search/suggestion page entitled "Find a Meetup" (shown directly when you log in),
- Figure 2: a *meetup group home page* (the landing page of a meetup group including by default information on recent and upcoming meetups),
- Figure 3: a meetup group reviews (accessible via the meetup home page),
- Figure 4: a *member's profile* (accessible via the meetup home page).

Look through the screenshots before answering the subsequent questions.







Home Members Photos Discussions More

Join us!



BPM the Basel Photography Meetup group is aimed at everyone who loves photography. People of all nationalities and languages are welcome, whether living in Basel or just passing through.

BPM shall be a place where knowledge and passion for photography will be shared, where we will explore new places and where we are having a good time together.

Everybody is welcome wheter you are a complete beginner, an advanced amateur or a pro.

I am always open for proposals from group members.

For more information, please have a look at the frequently asked questions FAQ!

Looking forward to meeting YOU all soon!

#### Basel, Switzerland Founded Jan 18, 2014

455 Photographers 17 Upcoming Meetups Past Meetups 65 Our calendar

#### Organizers:



Matthias, Michael

and 1 more...

Contact

#### We're about:

Photography Classes -Portrait Photography · Fine Art Photography · Amateur Photography · Location Photography · Digital Photography · Photography · Nature Photography · Landscape Photography

#### People in this Meetup are also in:



The Basel Book Club 260 Book lovers



Webilea - Web Events Basel 587 Members

#### We're 455 Photographers



Join us!

#### **Photography**

Upcoming (1) Past Calendar

#### **Texture Photography challenge**

Basel Bahnhof SBB Meeting Point Basel SBB, Basel (map)



The topic of this meetup is about searching for textures in street photography. Texture photography goes hand-in-hand with Patterns. These are the simplest ways to catch...

Hosted by: Matthias (Co-Organizer)

#### Tue May 30 6:00 PM **RSVP**

19 going 1 comment

#### **Recent Meetups**

5 days ago - 1:00 PM

#### Visit Photo Münsingen



3 Photographers | 15 Photos

One of the biggest Photoevents in Switzerland will take place from June 25-28, so don't miss it :) http://photomuensingen.ch/ For those who are interested to visit the... LEARN MORE

#### What's new





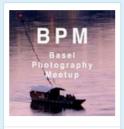


NEW COMMENT commented on Texture Photography challenge 3h ago

Sybille RSVPed Yes for Texture Photography challenge 5h ago



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#### About us...

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#### Organizers:

Our calendar



Matthias, Michael

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#### We're about:

Photography Classes · Portrait Photography · Fine Art Photography Amateur Photography -Location Photography -Digital Photography -Photography · Nature Photography · Landscape Photography

#### People in this Meetup are also in:



Basel Sahaja Yoga Meditation 214 Meditators



### **All Group Reviews**



" Super dass man auch Tips bekommt und lernen kann mit nette Menschen! '

- Silvia P on Apr 27, 2017.



"Fun! Nice to meet you all. :-)"

- Nigel on Feb 22, 2017.



" After a while away from the group, I found it quite good to attend again, lots of interest and good themes. "

- David Elith on Feb 22, 2017.



" Basel Photography Meetup is a nice group to practise and learn different perspectives to frame a picture also a great opportunity to meet similar enthusiasts. '

- Anil on Apr 24, 2016.



"BPM is a great way to meet other photographer enthusiasts, take pictures and make new friends! "

Diane L on Apr 2, 2016.



" Very good! "

Ravi Bindra on Mar 6, 2016.



" Great place to meet other photographers!"

Bjoern Steffens on Dec 23, 2015.



" great opportunity to meet, would be great to have more of those "

Serge Tripet on Nov 8, 2015.



" great!!!! "

Edoardo Mulattieri on Jun 24, 2015.



"Dear Barbara, so great that you took up on Mike's suggestion and organized the meetup. I am so glad I saw this fabulous film! "

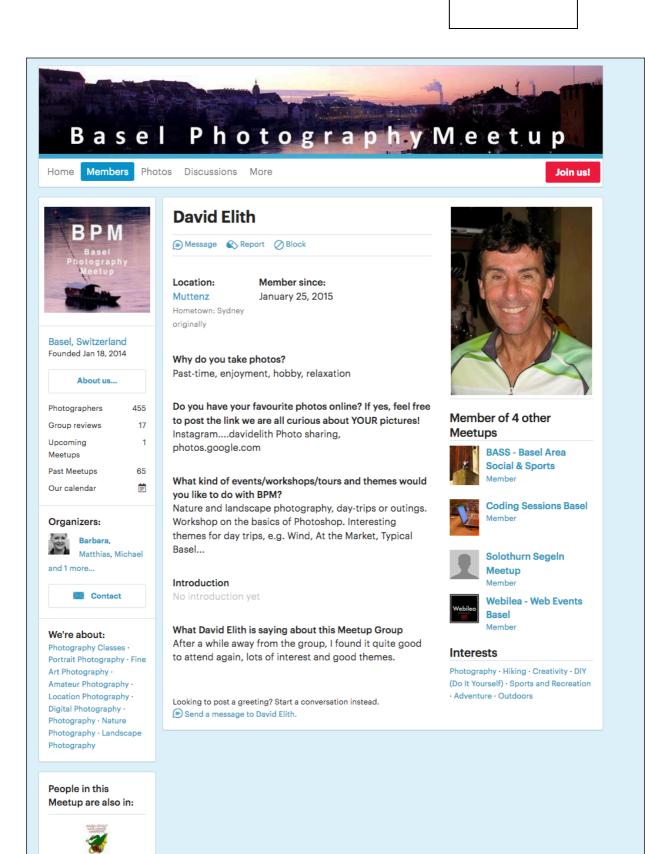
Hermione on Dec 9, 2014.



" Love it, looking forward to meeting more nice people and to learn more

Basel Hash House Harriers 433 Hashers

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#### Question 5.1

(16 points)

Especially in such platforms as "meetup", where contribution to motivate and participation benefits result from tight linkage with real world events, it is essential to prevent *problematic behaviors* (trolling, manipulation, free riding) and consider *hygiene factors* (trust, information quality, cognitive load).

Review the screenshots and identify **four** design principles employed in "meetup" to address problematic behaviors and/or hygiene factors:

- mark the relevant areas in the screenshots by using letters A to D
- shortly describe the implemented design principle
- state what design requirement the design principle addresses
- state what problematic behavior/hygiene factor this principle addresses

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ndicate the number of the question you are answering below.	