Last Name	First Name	Matriculation Number

Exam CSCW

January 16th, 2020

You have **90 minutes** to work on the exam. You can reach up to **90 points**. The information on the 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 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 your 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	6	Σ
Points possible	8	16	20	14	18	14	90
Points reached							

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Section 1:

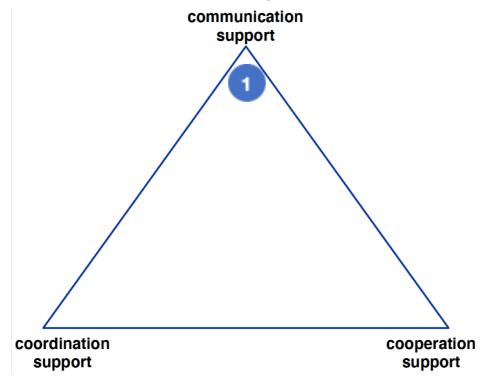
Collaborative Technologies – The 3C-Model (8 points)

Consider the following for this section: In the introduction lecture we discussed the classification of collaborative technologies. The 3C-Model allows you to group cooperation scenarios by interaction modes.

Question 1.1

(8 points)

Fill out the 3C-Model by placing the technology categories from the list below inside the model. Give a short explanation about the placement of each category and a concrete example for a tool (e.g., software). (See example below)



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Conferencing system

• Explanation:

The purpose of such systems is to enable comminucation within an organization (e.g. voice, video, screen sharing options)

• Example: Skype for Business

Shared information space

• Explanation:

• Example:

Group editors

• Explanation:

• Example:

Message systems

• Explanation:

• Example:

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Workflow management

• Explanation:

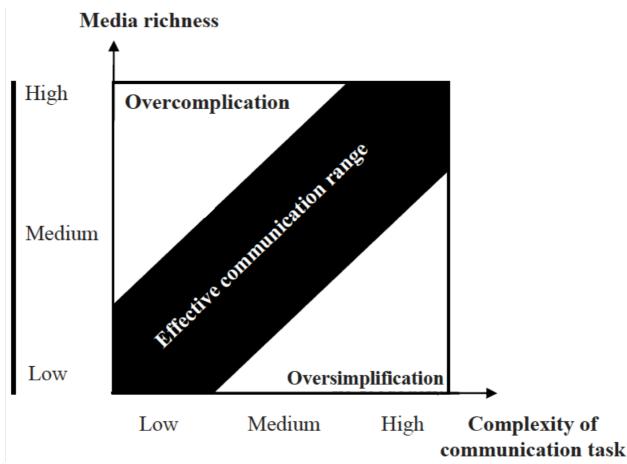
• Example:

Section 2:

Dyads and media richness (16 points)

Consider the following for this section: In the lecture, we were talking about problems occurring when two people are working together and how media can help here. When solving Homework 1 you made also many experiences when designing a doctor-patient communication. In the following, refer to the lecture slides on media richness and your experiences in the group work and daily life.

The following figure shows the model of Media Richness Theory. Read the scenario below and answer the questions 2.1 and 2.2.



Daft, R.L., Lengel, R.H.: Organizational Information Requirements, Media Richness and Structural Design. Management Science. 32, 5, 554–571 (1986).

Scenario of a doctor-patient encounter:

Jake, a 53-year old male patient suffers a fall from his bicycle and has sharp pain in his wrist. Therefore, he wants to schedule an appointment with his general practitioner (GP) Dr. Anna Hoffman. He calls the GP's secretary who offers him an appointment for the next day.

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The next day at the doctor's, Jake is asked about his condition. He explains what had happened and shows Dr. Hoffman where it hurts in his wrist. The doctor x-rays the patients lower arm, however she doesn't have time to look at the x-rays and discuss the results straight away but promises to call Jake in the afternoon with a diagnosis.

Unfortunately, Jake is not available and Dr. Hoffman leaves him a voice mail: "Dear Jake. I have your x-ray in front of me. Eghm... I cannot really identify the cause of your pain. Possibly a hairline fracture of the radius... but hmm... could be a tear in interosseous membrane... yeah I suggest you go visit Dr. Jane Flanders to further investigate your wrist". Due to medical nomenclature Jake did not understand much of the voice mail but he visits Dr. Flanders. She is a specialist orthopedic surgeon who Jake only sees very briefly before she orders a CT (computer tomography) of the wrist and quickly runs back into the operating room.

The results of the CT scan arrive in the mail 2 days later with an image and a diagnosis meant for the general practitioner, which Jake can't understand. He continues to take his pain medication he received from his GP and after a couple of weeks the pain in his wrist is completely gone. As agreed with his GP, Jake meets Dr. Hoffman again to catch-up on his condition. He tells his doctor that he is all well again and Dr. Hoffman says that she believes it was just a bone bruise.

Question 2.1

(8 points)

Identify the different media used during the interaction in the above described case. Clearly mark each medium in the model above (e.g., by numbering every medium) and explain your decision. (Please note: Not all tables below need to be filled out; it is your task to choose the adequate number of various media)

Medium 1:		
Explanation:		

Medium 2:	
1110313111 21	
Explanation:	
'	
Medium 3:	
Mediam 5.	
Explanation:	
Ma ali usa A	
Medium 4:	
Explanation:	

Medium 5:	
Explanation:	
Medium 6:	
Explanation:	
Medium 7:	
Explanation:	

Question 2.2 (8 points)

Identify two media from the above case where the communication between Jake and the health care providers (e.g., Dr. Hoffman) did not fit the complexity of the communication task. Make a suggestions for each identified mismatch and explain shortly how Media Richness Theory helps.

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Use it for your answers. Indicate the number of the question you are answering.

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Section 3:

Addressing Group Effects in Small Groups (20 points)

Consider the following for this section: During the lecture and in Homework 2 we covered extensively group effects and different modes of group work. You were able to identify group effects and how to overcome critical incidents in your small team collaboration.

The following transcript illustrates a collaboration session between Lisa, Andrea, Bob and Frank who work together in the IT department of a Swiss Bank. Read it carefully and make assumptions if needed (clearly indicate where you make which assumption). We provide line numbering on the left for a more convenient reference.

- 1 Lisa, Andrea, Bob and Frank are working on a software-project together and before
- 2 Christmas they are meeting to discuss the project plan for the year 2020.
- 3 Lisa: Hi all! We need to discuss the project plan for the software deployment in De-
- 4 cember 2020.
- 5 Frank: I believe we should define the work packages first including the timeline. I
- 6 propose that we should have finished the requirements analysis at the end of March.
- 7 Lisa: I totally agree. It is necessary that we have the requirements completed within
- 8 Q1.
- 9 Andrea: I agree as well but the guys from the business unit told me they are pretty
- 10 tight on resources in Q. They think it is almost impossible to define all the require-
- 11 ments.
- 12 Frank: But still it is very important to reach this milestone by the end of March. We
- 13 can surely make it somehow happen. Do you agree?
- 14 *Lisa, Andrea and Bob agree with Frank by nodding and saying "Yes agreed"*
- 15 Andrea: Good! So, this means, that IT can start with the programming latest by mid-
- 16 April. They having a pretty standard procedure. It will take them approximately until
- 17 September for the development of the new features. Testing will run through October
- 18 and November so there will be a buffer of 2 weeks until the deployment.
- 19 Lisa: We only need to keep in mind that the budget for the new features is very tight
- 20 and senior management will not tolerate if we exceed the spending limit.
- 21 Andrea: Don't worry about that. I now some of the features are costly but we as a
- 22 project management group will for sure be able to keep everything within the budget.
- 23 Frank: Surely we will manage this challenge together.
- 24 Bob: Great so this would be all then, right? Great meeting guys. See you next year.

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Question 3.1 (6 points)

Refer to the conversation between the group members. Identify three group effects and link them to the text (refer to the line numbering). Also, quickly explain them. You can make assumptions but clearly state where you make them.

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Question 3.2 (3 points)

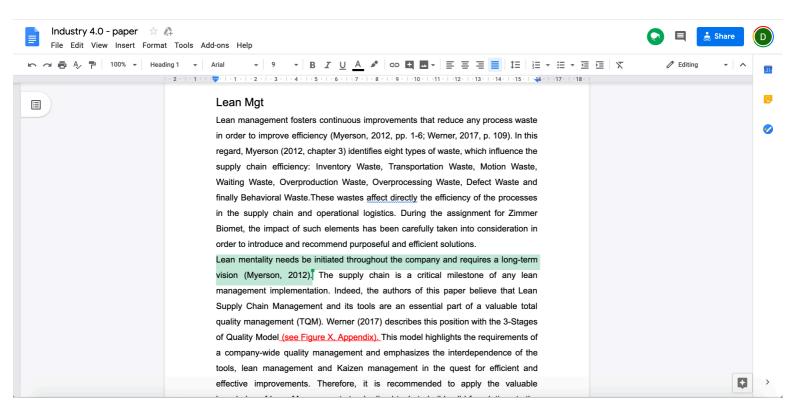
In the lecture we also covered the concept of shared editing. In the meeting above, the group uses Google Docs. Explain the differences between pessimistic vs. optimistic concurrency. Which form of access control is implemented in Google Docs and how?

Question 3.3 (11 points)

Now think again of the above discussion of the group. They work mostly distributed but synchronously on their project. Where do you see problems of awareness in this remote set up?

a) Identify at least 3 problems/limitations of awareness.

b) Describe how Google Docs as a tool for distributed collaboration can help with those limitations of awareness. Identify the relevant design elements in the figure below.



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Section 4:

Engineering Collaboration in Large Groups (14 points)

Consider the following: During the lecture and the 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 those sources, please, solve the following tasks.

Background story:

You are the CEO of a Zurich-based startup that is specialized in blockchain-applications for the financial industry. Since the foundation in 2015 you hold an annual meeting with all employees to discuss the strategy for the next year. The outcome is usually a rated list with strategic options that are taken up by you and the rest of the executive board to follow up with a concrete implementation plan.

Over the years, your company grew so much that holding the meeting in a offline and unstructured manner does not work anymore. A friend from UZH who took CSCW during her studies recommends collaboration engineering to you as a suitable tool to organize this year's meeting.

The meeting starts with an open feedback session where all employees put cards with comments on white boards with one of the strategic goals from the previous year as a title on it. After reading through the comments, all participants take a card with a strategic goal and place them on one of the pin boards to rate the completion on a scale from ongoing to almost achieved to achieved.

Following the review of last year's goals, your company ideates potential strategic goals for the next year. For this, the 30 participants write their ideas on one of the 32 sheets and toss them in the middle to exchange them among each other's. During the break, the facilitator categorizes all the ideas into topics that are rated after the break to decide on the importance of each proposed goal. The meeting is closed with an Apéro.

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Question 4.1 (14 points)

Your friend helped to prepare the workshop to define the strategy for the next year*. Unfortunately, you cannot read her handwriting and need to fill some of the fields by yourself. Fill in all fields in the table below. Provide an explanation for your choice for the fields with the pencil icon ().

*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 Cheat Slip" (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).

Layer		Content	<u> </u>	
Collaboration Goals	Agree on most important strategic options for the next year			
Group Products	A	A rated list with strategic option	ons for the next year	
Group Activities	Discussion of last year's strategic goals		Collection of ideas for next year's stra- tegic goals	Rating of the strate- gic goals in regards of their importance
Group Procedures		Evaluation of completion of every strategic goal	Generate ideas for the strategic goals, clarify comment by reading and shortly discussing with peers, organize ideas in topics	
Collaboration Tools (conventional, non-IT)	Cards to write com- ments on and white board with strategic goals to pin cards on	Cards with every strategic goal on it and 3 buckets with different categories		Sheet for every strategic goal and a voting scale from 1 to 5
Collaborative Behaviors	LeafHopper		FreeBrainstorm ReviewReflect PopcornSort	

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Use it for your answers. Indicate the number of the question you are answering.

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Section 5:

Model of behavioral problems and theories in social networks (18 points)

Consider the following: In the lecture, we discussed the model of behavioral problems and theories in social networks. In particular we discussed hygiene factors in different social networks (e.g., Facebook). On the next pages, you will find screenshots from LinkedIn. While referring to the lecture and your own experience with social networks, answer the following questions.

Question 5.1 (6 points)

a) Provide a definition of social capital and list at least 3 positive outcomes of social capital.

b) How do social network and online communities differ from each other in regards to social capital.

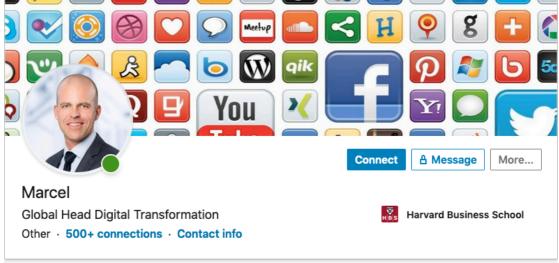
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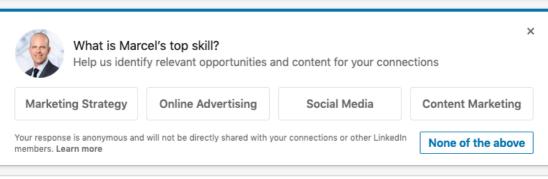
Question 5.2 (12 points)

a) On the screenshots below, clearly indicate all design elements that consider social capital and shortly explain their mechanism.

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b) Propose one modification to the platform concerning social capital and explain how this helps to improve the dimension.





Highlights



52 mutual connections

You and Marcel both know Pascale Rita and 50 others



Marcel can introduce you to 12 people at Lucerne University of Applied Sciences and Arts

Marcel worked at Lucerne University of Applied Sciences and Arts

Get introduced

Show more ~

About

In my whole career, I was working in the online world and had the opportunity to gain professional experience in leadership and digital business in various industries (e. g. consulting, foreign trade, health care, etc.). In addition to my diploma in business informatics and 3 certificates of advanced studies in digital marketing, digital o... see more





Selbstmanagement in einer digitalen Welt wird wichtiger,...

Marcel shared this 175 Reactions • 6 Comments



Gebt Querdenkern eine Chance!

Marcel shared this 46 Reactions • 2 Comments



New technologies have created new markets that, in turn, create new...

Marcel shared this

See all activity

See all articles

Experience



Global Head Digital Transformation

Emmi Group

Jun 2017 – Present · 2 yrs 7 mos Lucerne Area, Switzerland

Together with our high-performing digital experts, I am driving the digital transformation of the Emmi Group to an agile and data-driven organization. The mission of my team is to understand the impact of new technologies and digitalization, to identify potential opportunities and to be a proactive accelerator of digitalization in the Emmi marketing world.









+4



Lecturer CAS Online Media and Campaign Management

Hochschule Luzern

2014 - Present · 5 yrs

Lucerne Area, Switzerland

The CAS course provides in-depth knowledge on the management of digital channels such as web, social media, mobile, search engines and the design of appropriate policies and measures for the development and the management of results-oriented digital communication.



Digitale Transformation im Marketing - Wie...



Der «Wind of Change» bläst tückisch



Sabbatical

Hawaii, Los Angeles and Silicon Valley Mar 2017 – May 2017 · 3 mos United States

US West Coast (Hawaii, California) and Silicon Valley Experience (on-site findings and insights into the emerging technologies that will disrupt the way we live and work).



KPMG Switzerland

7 yrs

.....

Head of Digital Transformation

2013 – Feb 2017 · 4 yrs Zürich Area, Switzerland

As Head of Digital Transformation at KPMG in Switzerland, I have supported different clients in their process of digital transformation. My focus areas have been digital strategy, mobile, social media, omnichannel management, digital customer experience, and analytics.

Head of Digital Media

2010 - 2013 · 3 yrs

As Senior Manager Digital Media at KPMG I managed the Online Properties team and was responsible for developing and managing the digital & mobile strategy for the Swiss member firm. This included digital marketing, content marketing, social media, online monitoring, app development for iPad and Android devices and digital innovations.





KPMG Switzerland's Social Media Guidelines



Head E-Marketing

Osec

2007 – Aug 2010 · 3 yrs

Show 4 more experiences ~

Education



Harvard Business School

Driving Digital Strategy, HBS Executive Education 2019 – 2019



MITx (Online course from Massachusetts Institute of Technology)

User Innovation & Entrepreneurship 2017 – 2017



Silicon Valley Innovation Center

Immersion Program, Leading Digital Transformation 2017 – 2017

Show 1 more education ~

Licenses & Certifications



User Innovation & Entrepreneurship

MITx on edX Issued 2017 · No Expiration Date

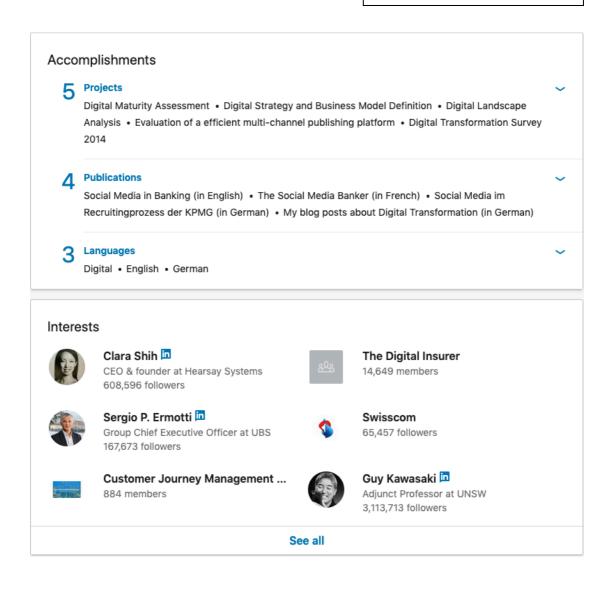
See credential

Q AXELOS

ITIL® Foundation Certificate in IT Service Management

AXELOS Global Best Practice Issued 2015 · No Expiration Date

Skills & Endorsements Digital Marketing · 83 Endorsed by Bhavan and 6 Endorsed by Stephan and 4 other others who are highly skilled at this mutual connections Online Marketing · 68 Endorsed by David and 5 others who Endorsed by Stephan and 3 other are highly skilled at this mutual connections Social Media · 63 Endorsed by Christoph and 2 Endorsed by 18 of Marcel's colleagues at other mutual connections KPMG Switzerland Show more ~ Recommendations Ask for a recommendation **Recommend Marcel** Received (18) Given (9) **Emanuel** I had the opportunity to report to Marcel - a manager who was Manager at Accenture also a mentor and coach. I had the pleasure of working with July 13, 2016, Emanuel reported Marcel for two years at KPMG Switzerland, collaborating on directly to Marcel several projects and developing the digital transformation services at KPMG Switzerland. Marcel exhibits stron... See more Marcel ist engagiert, innovativ, professionell, zuverlässig und hat Founder Noerdli die Gabe, Dinge auch mal aus einem anderen Blickwinkel zu March 18, 2013, Nora reported betrachten. Sein breites Wissen im Bereich Digital Marketing ist directly to Marcel enorm und sehr wertvoll. Als mein Line Manager schätze ich neben seiner Erfahrung auch seine Menschlichkeit u... See more Show more ~



Section 6:

Engineering collaboration in organizations (14 points)

Consider the following: In the lecture on dyads we discussed the effects of IT on advisory services (e.g., bank advisory, travel agencies). Read the case below carefully and answer the questions while referring to the lecture and your own experience with social networks, answer the following questions.

Thomas Cook Bankruptcy – New York Times Article published on September 23th



After 178 years of operation, the British tour operator Thomas Cook, one of the world's oldest travel brands, with 19 million annual customers, closed shop on Monday. The company announced that it would be liquidating its assets and filed for bankruptcy, despite attempts to rescue the brand.

At the moment of its collapse, Thomas Cook had a debt of 1.7 billion pounds, about \$2.1 billion, an amount the chief executive, Peter Fankhauser, had called "insurmountable." It had been in negotiations to obtain \$250 million in emergency financing when it declared bankruptcy.

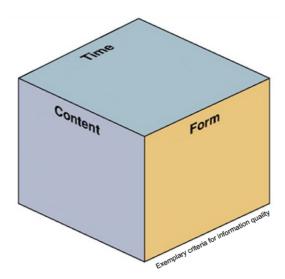
About 600,000 travelers around the world were affected, 150,000 of them from the United Kingdom and about twice as many from Germany, said the airline industry analyst Bob Mann, and more than 20,000 employees worldwide found themselves without a job.

Question 6.1 (2 points)

At a time when more people than ever are traveling, how could an established brand like Thomas Cook implode? What role did information technology play in this development?

Questions 6.2 (4 points)

Propose one solution how travel agencies can enhance their advisory services with IT in regards to information quality. Refer to the picture below you know from the lecture on Communities and Social Networks to specify how your solutions supports information quality in advice giving.



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Question 6.4 (8 points)

In the lecture on organizations we talked about different ways to develop collaborative systems. Especially, we looked at the scenario-based development. Create an activity scenario for your solution.

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Use it for your answers. Indicate the number of the question you are answering.