D4 Data and Ethics

Autumn 2022 – Lecture 1

Course orchestration – what you should know …

Agenda

(1) Orchestration → Slide deck 0

(2) Personal Security – Part I → Slide deck 1

(3) Personal Security – Part II → Slide deck 2

(4) Personal Security – Part III → Slide deck 3

KW	Date	Date	#	Topics	LernSetting WI	Lecturer
38 39	Self Study	First 2 weeks	0	Awareness - Entry Test with Moodle Test (20% counted to course grade)	Virtual	Selfstudy
38		KW38	0 + 7	Coaching Session (according to the information of the respective school)	on site	JRN= Juchler Norman Rerabek Martin Nyfeler Matthias
38	Fr, afternoon	23.09.2022	1	Personal Security	Virtual	Pascal Moriggl
39		KW39	1	Coaching Session	on site	FHNW: Pascal Moriggl ZHAW: JRN
39	Fr, afternoon	30.09.2022	2	Information Security & Cybersecurity I	Virtual	Petra M. Asprion
40		KW40	2	Coaching Session	on site	FHNW: Petra M. Asprion ZHAW: JRN
40	Fr, afternoon	07.10.2022	3	Information Security & Cybersecurity II	Virtual	Petra M. Asprion
41		KW41	3	Coaching Session	on site	FHNW: Pascal Moriggl ZHAW: JRN
41	Fr, afternoon	14.10.2022	4	Data Stewardship I	Virtual	Pascal Moriggl
42		KW42	4	Coaching Session	on site	FHNW: Pascal Moriggl ZHAW: JRN
42	Fr, afternoon	21.10.2022	5	Data Stewardship II	Virtual	Pascal Moriggl
43		KW43	5	Coaching Session	on site	FHNW: Pascal Moriggl ZHAW: JRN
43	Fr, afternoon	28.10.2022	6	Data Ethics	Virtual	Pascal Moriggl
44		KW44	6	Coaching Session	on site	FHNW: Pascal Moriggl ZHAW: JRN
44	Fr, afternoon	04.11.2022	7	Data Privacy	Virtual (Flipped Classroom)	Pascal Moriggl

Version September 2022

Dr. Pascal Moriggl

Institute for Information Systems, FHNW HSW
Lecturer and Researcher, PhD

- **Graduated in**

  CYP Center for Young Professionals in Banking (vocational)
  - BSc International Management (FHNW)
  - MSc Business Information Systems (FHNW)

- **PhD (in Computer Science at University of Camerino)**

  Topic: Blockchain and Digital Supply Chain

- **Main Working / Research Areas**
  - eHealth
  - Information Security
  - Ethics
  - Blockchain, Distributed Ledger Systems
  - Cybersecurity
  - **Competence Center Blockchain**

Prof. Dr. Petra Maria Asprion

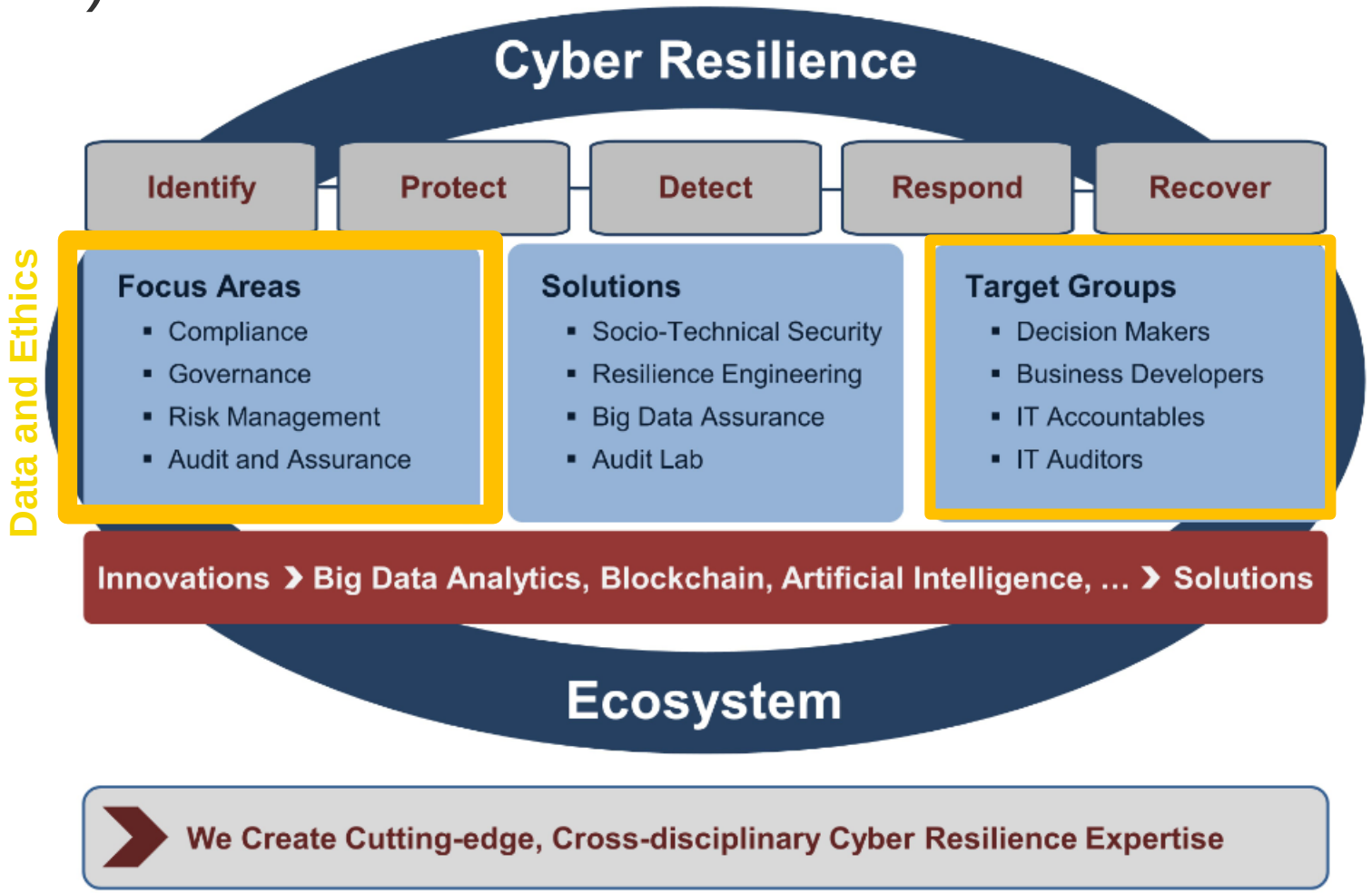
Institute for Information Systems, FHNW HSW
Head of Competence Center Cyber Security & Resilience
Head of Competence Center Blockchain

- **Graduated in**
  - Computer Science (University of Applied Science)
  - Economic Science (University)
  - Business Education (University)
  - Business Coaching and Conflict Management (University of Applied Science, FHNW)
- **PhD (University of Berne)**

  Segregation of Duties in ERP. Concepts, Methods and Case Studies

  Google ebook: http://books.google.de/books/about/Funktionstrennung_in_Erp_Systemen.html?id=Buddg7bkk7AC&redir_esc=y
- **Main Working / Research Areas**
  - Enterprise Systems, focused on Internal Controls / GRC Systems (within ERPS)
  - (IT) Governance, Risk Management, Compliance
  - (IT) Audit, Assurance and related data
  - **Competence Center Cyber Security & Resilience**
  - **Competence Center Blockchain**

Cyber Security and Cyber Resilience (CSR)



› We Create Cutting-edge, Cross-disciplinary Cyber Resilience Expertise

What is your knowledge level?

- What comes to your mind hearing „data and ethics“?

- https://www.menti.com/al59tdwaw56o
- Code: **6577 1611**

Excerpt Module Description AS22

Module contents	***Theme 1 – Personal Security*** *(PMA/PM, 2 lessons)* Securing a personal computer Securing a smartphone ***Theme 2 –Information Security & Cybersecurity*** *(PM/PMA, 4 lessons)* Life science perspective Data storage, use, transfer Data encryption, decryption Best practices, policies ***Theme 3 – Data Stewardship*** *(PM/PMA, 4 lessons)* Data governance Roles and responsibilities Implementation, Documentation, Standardisation FAIR guiding principles ***Theme 4 –Data Ethics*** *(PM, 2 lessons))* Data ethics in clinical research and drug development Research Requirements Data Ethics Canvas ***Theme 5 –Privacy*** *(PM, 2 lessons))* Regulatory considerations Anonymization vs. pseudonymization Licencing: Open Source, Creative Commons, etc.

Application of knowledge and understanding …

Learning outcomes and competences	After completing the module, students will be able to … • understand the essentials of information and cybersecurity and its relevance to the personal, corporate, and research domain • understand the legal background that drives information/cybersecurity and data privacy. The latter from two perspectives as a duty to adhere to by a legal entity and as a right to be claimed by an individual • understand the risks to prioritize information/cybersecurity by learning about the malicious actor perspective (motivation and attack vectors) • secure their individual, digital footprint on a smartphone or personal computer (end user level) • understand and apply a data stewardship approach for research data • understand data ethics considerations, its implications for society • design an ethics policy for a workplace in life sciences.

Information

Coaching Sessions

There will be a FAQ, if any, from after the coaching sessions – on Moodle

Information

Assignment (individual – 80%):

Create a ‘Data and Ethics Handbook’ as your individual contribution

- Counts 80% of the overall grade
- It is an individual work
- The conditions will be published on Moodle
- The template will be published on Moodle
- Coaching Session Inputs on the elements

Lecture	Related Coaching	Coaching Sessions Input Lectures	Deliverables	Points (max)
KW38	KW38	Escape Room, Personal Security, Data Privacy	Relevance Description	10
KW40	KW41	Information & Cyber Security	Information Security Policy	15
KW41	KW42	Data Stewardship I	Data Management Plan	15
KW42	KW43	Data Stewardship II	Fair Guiding Principles	15
KW43	KW44	Data Ethics	Data Ethics Canvas	15
			Course Reflection	10
				80

Information

Assignment (individual – 80%):

Example snapshot from the template

1 Relevance Description

Maximum three pages including pictures in this chapter

1.1 Awareness

Maximum one page including pictures
Reflect on the overall relevance of being aware of cybersecurity aspects that were introduced to you through the digital escape room

1.2 Personal Information Security

Maximum one page including pictures
Report in brief about your activities regarding the personal information security input (teaching and coaching session). It could include snapshots, lessons learned, or changes in your setup and behavior.

1.3 Organizational Information Security

Maximum one page including pictures
Report in brief about the relevance of information security from an organizational perspective. It could include why information security in modern times is essential for organizations to manage, with references to a particular industry or framework.

Deadline: **18.11. 23.59** – hand in on Moodle

Grading scale

%	Grade	Half Grade	%	Grade	Half Grade
100	6	6	50	4	4
99	6	6	49	3,9	4
98	6	6	48	3,9	4
97	6	6	47	3,8	4
96	6	6	46	3,8	4
95	6	6	45	3,7	3,5
94	6	6	44	3,6	3,5
93	6	6	43	3,6	3,5
92	6	6	42	3,5	3,5
91	6	6	41	3,5	3,5
90	6	6	40	3,4	3,5
89	6	6	39	3,3	3,5
88	5,9	6	38	3,3	3,5
87	5,9	6	37	3,2	3
86	5,8	6	36	3,2	3
85	5,8	6	35	3,1	3
84	5,7	5,5	34	3	3
83	5,7	5,5	33	3	3
82	5,6	5,5	32	2,9	3
81	5,6	5,5	31	2,9	3
80	5,5	5,5	30	2,8	3
79	5,5	5,5	29	2,7	2,5
78	5,4	5,5	28	2,7	2,5
77	5,4	5,5	27	2,6	2,5
76	5,3	5,5	26	2,6	2,5
75	5,3	5,5	25	2,5	2,5
74	5,2	5	24	2,4	2,5
73	5,2	5	23	2,4	2,5
72	5,1	5	22	2,3	2,5
71	5,1	5	21	2,3	2,5
70	5	5	20	2,2	2
69	5	5	19	2,1	2
68	4,9	5	18	2,1	2
67	4,9	5	17	2	2
66	4,8	5	16	2	2
65	4,8	5	15	1,9	2
64	4,7	4,5	14	1,8	2
63	4,7	4,5	13	1,8	2
62	4,6	4,5	12	1,7	1,5
61	4,6	4,5	11	1,7	1,5
60	4,5	4,5	10	1,6	1,5
59	4,5	4,5	9	1,5	1,5
58	4,4	4,5	8	1,5	1,5
57	4,4	4,5	7	1,4	1,5
56	4,3	4,5	6	1,4	1,5
55	4,3	4,5	5	1,3	1,5
54	4,2	4	4	1,2	1
53	4,2	4	3	1,2	1
52	4,1	4	2	1,1	1
51	4,1	4	1	1,1	1
50	4	4	0	1	1

Outlook

(1) Orchestration → Slide deck 0

(2) Personal Security – Part I → Slide deck 1

(3) Personal Security – Part II → Slide deck 2

(4) Personal Security – Part III → Slide deck 3

(5) Personal Security – Part IV → Slide deck 4