**FINAL COLLOQUIUM**:

1. How do we define artificial intelligence (AI)?
2. What is the era when reality can be predicted, simulated and approximated?
3. What are the reasons that revolutionized the sciences?
4. How AI may augment human behavior?
5. What tasks have humans started entrusting to AI?
6. What human qualities outperform AI? What human qualities will this age celebrate?
7. How does AI challenge self-perception and interaction with machines?
8. Is sentence completion (with the usage of generative models) distinct from writing?
9. What are the major ML techniques used in the social sciences?
10. What are the major ML techniques used in the health sciences?
11. What are the concepts of interpretability, fairness, and generalizability in the social and health sciences?
12. What method would we apply to assess prevalence or distributions of variables between (social) groups, countries or geographical entities, or over time (between cohorts)?
13. How can we screen and identify individuals at risk or higher-level patterns? (provides the data and method)
14. What type of analysis is used in approaches to diseases where long-term risk prediction is relevant?
15. What are the approaches to risks identification in the health and social sciences?
16. What is the goal of a descriptive research in health sciences?
17. How the sensor data, language data and etc. can be used to detect conditions or disease?
18. What are the major distinctions between ‘digital natives’ and other generations?
19. How AI has been applied to the practice of medicine and to health care more broadly?
20. Considering the current state of progress, where is research and development most urgently needed in the field and why?
21. What are the roots of artificial intelligence in human history, before the general introduction of digital computers?
22. What are the major concepts of Classic AI and Modern AI?
23. How did computer science emerge as an academic and research discipline and how was AI identified as a component of that revolution?
24. How did a medical focus on AI applications emerge from the early general principles of the field?
25. How did the field of cognitive science influence early work on AI in Medicine (AIM) and how have those synergies evolved to the present?
26. What were the early medical applications of AI and how were they received in the clinical and medical research communities?
27. What are the Human Factors of AI in Healthcare?
28. What is a skill atrophy and how is it connected to AI methods implemented?
29. What is the safety of AI in Healthcare? What are the Technology-Induced Errors in Healthcare and AI Safety?
30. What are the limitations of ML methods in medicine?
31. What are the social challenges that we face by implementing AI in health care settings?
32. What are the approaches to the ethics of AI with considerations to privacy and safety?
33. What are the trends in quality and safety research within the healthcare field?
34. What is an adverse event and what are the ways to tackle by means of ML?
35. What is the concept of a shared decision-making?
36. What are the major domains of AI?
37. AI and reliance on data: what are the major difficulties?
38. What are the criteria that drive technology innovation?
39. Explain medicalization of life as an approach.
40. What so the terms ‘learning’ and ’intelligence’ mean in relation to AI?
41. What expectations of the past influence the present of AI?
42. What are the major ways the AI is changing healthcare and health?
43. What is an electronic health records? How do they affect the patient-provider relationship?
44. Provide a brief overview of the study of inequalities and AI.
45. What is the politics of algorithms, data and code?
46. What are the inequalities that are highly likely to be made more durable by AI?
47. AI as a social phenomenon: provide a brief overview of the wider social, cultural, economic and political conditions.
48. How could improper AI hurt health systems?
49. What are typical cybersecurity vulnerabilities due to AI implementation in healthcare?
50. What is the influence of AI on human skills?
51. What are the factors to take into account for AI application evaluation?
52. What are the ways to empower patients and caregivers by AI applications?
53. What are typical cybersecurity vulnerabilities due to AI implementation in healthcare?
54. What is the influence of AI on human skills?
55. What are the ways to empower patients and caregivers by AI applications?
56. What are major approaches to understanding health behavior? What factors does is depend on?
57. What are the approaches to analyze the trust of the Internet?
58. What are the traditional digital divide factors? Why are they included in the method?
59. What are the major characteristics and requirements of the doctor-patient communication in the XXI?
60. What are the approached to explainable AI, whom should the technology be explained?
61. What are the approached to build trust to the machines?
62. What are the typical social dilemmas in health sciences?
63. How can we define emotions by facial expressions?
64. What are the methodological issues of facial recognition?
65. What social problems can be solved by means of AI?