

# Qualitative Content Analysis of Reflective Writing and Evaluation Results from the Science Fiction Courses (Summer Semester 2022, Summer Semester 2023 & Winter Semester 2023/24)

## Code System

| Main Categories       | Subcategories                                           | Mentions | Anchor Quotes Examples                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Science Fiction Films | Conscious Film Viewing                                  | 6        | "I found that I watched the films in a different/more intense way than during a regular movie night. This way, I didn't just let myself be passively entertained by what was shown." (1)                                 |
|                       | Maintaining the New Way of Watching Films               | 3        | "I will try to maintain this approach when watching films in the future." (2)                                                                                                                                            |
|                       | Different Viewpoint/Perspective on Films                | 3        | "Before this course, I viewed films primarily as a form of entertainment. Since this course, I look at films with different eyes. I pay more attention to the depiction and how realistically scenes are portrayed." (3) |
|                       | Discovering the Diversity of Science Fiction Films      | 3        | "I got to know the variety of science fiction films." (4)<br><br>"I was surprised by the broad range of topics, from democracy to climate and AI to possibilities for cultivating soil." (5)                             |
|                       | Insights into New Topics/Film Content                   | 3        | "You start paying attention to other aspects in the context of television or the consumption of science fiction and its content." (6)                                                                                    |
|                       | Films Students Wouldn't Have Watched Without the Course | 3        | "I watched many films in this course that I otherwise wouldn't have watched." (7)                                                                                                                                        |
|                       |                                                         |          |                                                                                                                                                                                                                          |

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|                 | <b>In-Depth Thematic Analysis</b>              | 7        | <p>“It was very interesting to analyse films on a scientific level and to delve deeper into some topics. It was shocking how much of the abstract and unthinkable has actually already arrived in the here and now. The open exchange, the different skills and expertise of the participants contributed to insightful debates. A valuable course that teaches critical thinking, research and discourse skills” (8)</p> <p>“It became clear how much films reflect society and how much can be learned from them.” (9)</p> |
|                 | Implications for One’s Own Reality             | 2        | “Nowadays, when I watch films, I automatically start thinking about their implications for our reality.” (10)                                                                                                                                                                                                                                                                                                                                                                                                                |
|                 | Truth/Reality Content of Films                 | 6        | “There were mainly discussions about comparable films/series or technical film details and how realistic they are.” (11)                                                                                                                                                                                                                                                                                                                                                                                                     |
|                 | Oppressive, Dystopian Films/General Atmosphere | 3        | “In each film, the future was technologically advanced, but everything was bleak with a sad and unsatisfying overall mood.” (12)                                                                                                                                                                                                                                                                                                                                                                                             |
|                 | Reflection on Media Consumption                | 3        | <p>“Since then, I have reduced my social media consumption.” (13)</p> <p>“The course also helped me to discuss films and media in general from a socially critical perspective.” (14)</p>                                                                                                                                                                                                                                                                                                                                    |
|                 | <b>Appropriate Film Selection</b>              | 3        | “The films were well chosen and, even when there were no lightsabers, had sci-fi and dystopian elements that made you                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                 |                                                         |          | think.” (15)                                                                                                                                                                                                                                                                                                                                                                               |
|                 |                                                         |          | “That we could choose the films ourselves created real motivation to engage with the topic.” (16)                                                                                                                                                                                                                                                                                          |
|                 | <b>Broad Range of Topics</b>                            |          |                                                                                                                                                                                                                                                                                                                                                                                            |
|                 | <b>Humanity</b>                                         | 3        | “How human is an AI, and how human can it become? The fact that AI and humans were sometimes considered equal on the level of consciousness irritated me, but also raised the question of what defines a human being and what differentiates us from a machine.” (17)                                                                                                                      |
|                 | <b>Future</b>                                           | 7        | <p>“From a hobby/pastime (watching science fiction), you can surprisingly well discuss the social opportunities and risks of the future.” (18)</p> <p>“My most important experiences were the discussions about AI and its ethical treatment as well as human behavior in crisis situations. The transfer from sci-fi scenarios to current crises was also extremely insightful.” (19)</p> |
|                 | <b>Environment, Climate Change and Planetary Health</b> | 13       | <p>“[...] I will continue to reflect on whether films in general reference environmental destruction and climate change and to what extent the scenarios depicted might be possible.” (20)</p> <p>“[...] I would not have thought that the topic of climate change affects so many people so emotionally [...].” (21)</p>                                                                  |

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|                 |                         |          | <p>“[...] and how great the fear of negative consequences is.” (22)</p> <p>“After this course, I will question myself and my actions more often and try to live in a more climate-conscious way.” (23)</p>                                                                                                                                                                                                                                                                                                                                                                                                              |
|                 | Technology              | 19       | <p>“The experiences I’ve had, I will of course carry forward into other discussions, as well as the new insights about AI and existing or possible technologies.” (24)</p> <p>“I also realized that although we grew up in a difficult time, it also offers incredible opportunities. Technological achievements could help us solve our major problems in the future.” (25)</p> <p>“What is morally acceptable and what is not? Just because something was artificially created, does that give me the right to do anything I want with it?” (26)</p>                                                                  |
|                 | Artificial Intelligence | 20       | <p>“My most important realization was how different opinions on AI can be and what the key standpoints are. The topic was illuminated for me from completely new perspectives.” (27)</p> <p>“Through the course, I was able to learn more about AI and robotics and explore what I find exciting, frightening, or promising about these topics.” (28)</p> <p>“How human is an AI, and how human can it become? The fact that AI and humans were sometimes considered equal on the level of consciousness irritated me, but also raised the question of what defines a human being – and what differentiates us from</p> |

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|                 |                                                                   |          | a machine.” (29)                                                                                                                                                                                                                                                                                                                                                                                            |
|                 | <b>Society</b>                                                    | 16       | <p>“In the near future, I look at the development of our society with both curiosity and continued respect.” (30)</p> <p>“From a hobby/pastime (watching science fiction), you can surprisingly well discuss the societal opportunities and risks of the future.” (31)</p> <p>“I was surprised by the range of topics, from democracy to climate and AI to the possibilities of cultivating soil.” (32)</p> |
| <b>Course</b>   | <b>Positive Evaluation of the Course</b>                          | 18       | “I really enjoyed the course.” (33)                                                                                                                                                                                                                                                                                                                                                                         |
|                 | Gaining New Perspectives and Viewpoints                           | 5        | <p>“Through the course, I was able to learn a lot of new perspectives and also watch some really beautiful films.” (34)</p> <p>“This experience means a lot to me somehow – it’s a very good change from everyday university life, and I really enjoy the StuFu Thursdays.” (35)</p>                                                                                                                        |
|                 | Looking Forward to the Next Course/Future Participation           | 2        | “In that sense, I’m already looking forward to the Fantasy course next winter semester.” (36)                                                                                                                                                                                                                                                                                                               |
|                 | Course Promotes Critical Thinking, Research, and Discourse Skills | 2        | “A valuable course that teaches critical thinking, research, and discourse competence.” (37)                                                                                                                                                                                                                                                                                                                |
|                 | Discussion and Reflection Beyond the Course                       | 7        | “The discussions often stayed with me for days. I also usually discussed the movies with friends or family members. When I                                                                                                                                                                                                                                                                                  |

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|                 |                                       |          | <p>watch movies now, I usually automatically think of implications for our reality.” (38)</p> <p>“Participation changed my awareness while watching such films, so that I’ll continue thinking about whether films generally have a reference to environmental destruction and climate change.” (39)</p>                                                                                                                                                                                                                                                                                 |
|                 | <b>Criticism of the Course</b>        |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                 | Difficulties During the Discussions   | 8        | <p>“The topics were good, but sometimes the discussions just went in circles or strayed too far from the main subject [...]” (40)</p> <p>“The course was more demanding than expected. Watching one film per week sounded like a nice balance to my main studies, but in the end, it caused more stress than relaxation, because without background knowledge, discussions aren’t fun (or meaningful).” (41)</p> <p>“It was occasionally difficult to find ‘content’ for certain discussion topics (for example, ‘social innovation’ wasn’t equally applicable to every film).” (42)</p> |
|                 | Learning Barriers                     | 2        | <p>“There were fewer topic-led discussions oriented around certain societal crises.” (43)</p> <p>“What makes learning more difficult?” “Time pressure.” (44)</p>                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                 | <b>Suggestions for Future Courses</b> | 7        | <p>“What suggestions for improvement do you have?” “NONE – the StuFu course is one of the most interesting, and I wouldn’t want</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                                 |                                         |          | to miss the discussions.” (45)                                                                                                                                                                                                                                                                                                                              |
|                                 |                                         |          | “Next time, I hope for interesting new films and perhaps broader participation in the discussions.” (46)                                                                                                                                                                                                                                                    |
|                                 | Wish for More Variety in Film Selection | 3        | “I would’ve appreciated more variety in the film selection.” (47)                                                                                                                                                                                                                                                                                           |
| <hr/>                           |                                         |          |                                                                                                                                                                                                                                                                                                                                                             |
| <b>Methodological Approach</b>  |                                         |          |                                                                                                                                                                                                                                                                                                                                                             |
| <b>Discussions and Exchange</b> |                                         |          |                                                                                                                                                                                                                                                                                                                                                             |
|                                 | Discussion Culture                      | 33       | <p>“It was exciting to see how deep some discussions about the various films went.” (48)</p> <p>“My most important experiences were the discussions, which sometimes occurred on a meta-level derived from further reflection on what we had seen.” (49)</p> <p>“The experiences I’ve had, I will of course carry forward into other discussions.” (50)</p> |
|                                 | Exciting/Stimulating Discussions        | 8        | <p>“I found the discussions after the films especially exciting, as well as the connections to our fields of study.” (51)</p> <p>“The instructors always created a space for stimulating discussions.” (52)</p>                                                                                                                                             |
|                                 | Academic Standards                      | 3        | “And still, the discussions lived up to academic standards.” (53)                                                                                                                                                                                                                                                                                           |

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|                 |                                                                |          | “For my future career, I can take away many aspects, including looking twice and being open to new perspectives.” (54)                     |
|                 | Professional Expansion of Knowledge                            | 2        | “In terms of subject matter, it expanded my knowledge, especially in this area.” (55)                                                      |
|                 | Focus on Enjoyment of Learning                                 | 4        | “The joy of learning and discussing was front and center [...]” (56)                                                                       |
|                 | Open, Respectful Learning Atmosphere                           | 4        | “[...] the group was always respectful and interested.” (57)                                                                               |
|                 |                                                                |          | “My most important experiences include the open communication with others, the exciting topics across various areas.” (58)                 |
|                 |                                                                |          | “All in all, a wonderful learning atmosphere.” (59)                                                                                        |
|                 | Accessibility of Discussions                                   | 3        | “[...] despite many nerds, it was easy to join the discussion, even without nerd knowledge.” (60)                                          |
|                 | StuFu as a Safe Space for Community                            | 3        | “I really like that StuFu courses for ‘nerds’ are offered, such courses are always a kind of safe space for me.” (61)                      |
|                 | Learning Through Exchange with Students from Other Disciplines | 11       | “I really enjoyed this exchange, because bringing together people from different disciplines allowed for diverse opinions.” (62)           |
|                 |                                                                |          | “Through the discussions, you get to know other students’ viewpoints, which makes everything more exciting and leads to discussions.” (63) |

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|                 | Connections to Different Study Programs                  | 6        | "I found the post-film discussions especially exciting, as well as the links to our respective degree programs." (64)                                                                                                                                                                                                                                                                                      |
|                 | <b>Reflection</b>                                        |          |                                                                                                                                                                                                                                                                                                                                                                                                            |
|                 | Ethical and Moral Questions and Topics                   | 3        | <p>"Thoughts about the future and how multifaceted it will be accompany me daily. What role will humanity play? How will technology and digitalisation evolve?" (65)</p> <p>"I particularly enjoyed the ethical topics." (66)</p>                                                                                                                                                                          |
|                 | Questioning of Technological and Social Change           | 4        | "My most important realisation was that all kinds of technological and societal changes and innovations can and should be questioned critically." (67)                                                                                                                                                                                                                                                     |
|                 | Previously Unconsidered Ethical and Moral Aspects        | 2        | "There are also many ethical and moral aspects that one may not have considered before." (68)                                                                                                                                                                                                                                                                                                              |
|                 | Illumination of Different Perspectives on Various Topics | 4        | <p>"I was able to gain multiple perspectives on many things. Even if I don't share them, it's still important to keep them in mind and understand them." (69)</p> <p>"The course made me personally question my dominant thought patterns and reflect on my role as an individual in this world." (70)</p> <p>"Other viewpoints are always good to better reflect on oneself and one's opinions." (71)</p> |