
Contents

Introduction	xi
Jean-Luc RINAUDO	
List of Abbreviations	xix
Part 1. Telepresence and Student Support.	1
Chapter 1. Feelings of Telepresence and Proximity: the Perspectives of E-tutors on a Hybrid Learning Environment.	3
Brigitte DENIS	
1.1. Introduction.	3
1.2. Telepresence and proximities in remote interactions	4
1.2.1. Overcoming absence with telepresence	4
1.2.2. Experiencing the feeling of proximity at a distance.	6
1.3. Research question	7
1.4. Presentation of the system	7
1.4.1. Targeted competencies and target audience	7
1.4.2. Organization: a hybrid techno-pedagogical system	8
1.5. Learning system agents	10
1.5.1. Creator-directors	11
1.5.2. The supervising team.	12
1.5.3. Types of recurring artifacts	14
1.6. Methodology	15
1.6.1. Data collection	15
1.6.2. Limitations.	16

1.7. Results	16
1.7.1. Interaction modalities and media	17
1.7.2. Conditions and types of exchanges between e-tutors and students	17
1.7.3. How do e-tutors provide the feeling of telepresence from a distance?	20
1.7.4. Impact of the eT's interventions/interactions.	21
1.8. Discussion	24
1.9. Conclusion and perspectives.	27
1.10. Appendix: e-tutor interview guide.	28
1.11. References.	30
Chapter 2. Reinforcing Telepresence in Research Training with Learning Communities: Remote Collaboration between Student-Researchers	33
Gustavo ANGULO and Cathia PAPI	
2.1. Introduction.	33
2.2. Multidimensional approach to distance learning	35
2.3. Modulating pedagogical distance: what presence should be created?	37
2.4. Increasing presence in the research learning process through distance learning: how to problematize collaboration between student-researchers at a distance?	41
2.5. Further questions	46
2.6. Conclusion	47
2.7. References	48
Chapter 3. Facilitating Problem-Based Learning: A Reflective Analysis	59
Ann-Louise DAVIDSON and Nadia NAFFI	
3.1. Introduction.	59
3.2. Context	60
3.3. Problem-based learning and problem-based learning objects	61
3.4. The use of technologies and underlying competencies	63
3.5. Description for an online course designed and developed with a problem-based approach.	64
3.6. Methodological framework for our reflection.	67
3.7. Reflection on student support	68
3.8. Conclusion	71

3.9. Appendix: perception matrix	73
3.10. References.	73
Part 2. Telepresence in Teacher Training	77
Chapter 4. Contribution of Virtual Classes to the Construction of Professional Knowledge for Teachers	79
Romaine CARRUPT	
4.1. Professional knowledge and virtual classes	79
4.2. Hybridization of part-time training	80
4.3. Construction of professional knowledge in virtual classes	80
4.3.1. A system for hybrid professional training	80
4.3.2. Synchronous communication in a virtual class	81
4.3.3. Training and support for learning in virtual classes	82
4.3.4. Professional knowledge	82
4.4. Hypotheses and research questions	83
4.5. Methodology	84
4.6. Results and analysis	87
4.6.1. Interactions in virtual classes/in person	87
4.6.2. Measurement of incorporated knowledge.	89
4.7. Discussion of interactions in virtual classes and in person	91
4.7.1. Progressive interpenetration of theoretical knowledge in virtual classes	91
4.7.2. Scientific knowledge inoperative in person	94
4.7.3. Mediatized/non-mediatized interactions	97
4.7.4. An orchestration of instruments	99
4.8. Conclusion	99
4.9. References	101
Chapter 5. Support for Work through Telepresence: Teachers' Feelings of Self-Efficacy and Strategies for Self-Management	107
Stéphanie BOÉCHAT-HEER	
5.1. Introduction.	107
5.2. Conceptual framework	108
5.2.1. Social interactions in telepresence and the feeling of presence.	108
5.2.2. The pedagogical system and the organization of interaction between participants	109
5.2.3. The feeling of self-efficacy in the implementation of pedagogical design	110

5.3. Methodological approach	111
5.3.1. Objectives and research questions	111
5.3.2. Research type and method.	112
5.3.3. Overview of research, participants and instruments.	112
5.3.4. Data analysis.	113
5.4. Analysis of the results and discussion	113
5.4.1. Contrasting opinions depending on the level of the teachers' practice in telepresence	113
5.4.2. Teachers' feelings of self-efficacy and their self-management strategies	114
5.5. Conclusion	122
5.6. References	123
Part 3. Telepresence Robots	127
Chapter 6. Effect of a Telepresence Robot on Remote Students' Bodily Impressions: Extended or Mended Body	129
Françoise POYET	
6.1. Introduction.	129
6.2. A new ontophany engendered by the telepresence robot	130
6.3. Sensory motor and bodily schema: towards an augmented body?	131
6.4. Methodology	133
6.5. Discussion	135
6.5.1. Technical appropriation of the robot facilitated by the transfer of old sensory-motor schemes	135
6.5.2. Modified perceptions, a new way to perceive and understand ubiquity as an ordinary phenomenon	136
6.5.3. Constructing a new representation of one's body and adapting one's bodily schema.	138
6.5.4. An open window to the class: from an extended to a mended body?	139
6.5.5. A location, an interpersonal distance and redefined social behaviors.	140
6.5.6. Repercussions on learning styles: a focus on attention and a change in strategy	141
6.6. Conclusion	141
6.7. Acknowledgments	142
6.8. References	143

Chapter 7. Co-construction of Tangible, Dispersed and Multi-semiotic Spaces through the Use of a Telepresence Robot	145
Dorothee FURNON	
7.1. A new phenomenological experience	145
7.2. Understanding physical experience from a systemic perspective	147
7.3. Intersubjective negotiation for the construction of tangible spaces	150
7.4. Field study and data collection methods	151
7.5. Illustrations of perceptual adjustments during mediatised interactions.	152
7.5.1. Transformation of a cursor into an instrument of vocal proprioception	153
7.5.2. Perceptual adjustment in the co-construction of a statement within the pedagogical relationship	155
7.6. Creation of multiple spaces for the appearance of the self and the other through an expansion of physical spaces.	156
7.7. The biases and limits of provoked absence in a study based on a systemic approach.	158
7.8. Conclusion and recommendations	159
7.9. References	161
Chapter 8. The Telepresence Robot in Universities: Between Subjectification and Unlinking	163
Jean-Luc RINAUDO	
8.1. Introduction.	163
8.2. A telepresence system	164
8.3. The psychoanalytical clinical approach	165
8.4. Psychoanalytical approach to robots	167
8.5. Methodology	169
8.6. A surprising opportunity	169
8.7. Other considerations	172
8.8. The psycho(patho)logy of the virtual everyday: a presence in the absence	173
8.9. References	175

Chapter 9. A Telepresence Research Set-up in a Doctoral Seminar: the “Digital Presences” Workshop	179
Christine DEVELOTTE	
9.1. Introduction.	179
9.2. Context: reflexive research.	180
9.3. Technical-physical system	184
9.4. Theoretical framework	186
9.5. Techno-methodological choices.	188
9.6. Technical work on video data	189
9.7. Discussion	190
9.8. Conclusion	193
9.9. Appendices	194
9.9.1. Appendix 1. Explanatory interview	194
9.9.2. Appendix 2. Questionnaire	197
9.10. References.	198
Conclusion	201
Jean-Luc RINAUDO	
Postface	205
Jacques WALLET	
List of Authors	213
Index	215