TECHNOLOGY MEDIATED LEARNING EXPERIENCE FOR MBA STUDENTS PARTICIPATING IN A TRANSNATIONAL TEAM PROJECT

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ABSTRACT

This paper describes a technology-mediated project designed to bring together groups of graduate level students to participate in an intensive business simulation. Both groups of students are enrolled in MBA programs: one group at Wayne State University's (WSU) School of Business in Detroit, Michigan and the other at the Technical University of Munich (TUM), Germany. A prototype of the project was conducted as a directed study with six-member student teams from each university in the winter 2000 term, following which it was agreed that the exercise had a great deal of value and should be continued. The project was conducted as a formal class for the first time in the winter 2001 semester; consequently, this paper describes a work in process. The project is multi-dimensional from both the design perspective, and from the perspective of learning objectives. Although we describe the simulation/experiential learning component of the course, the paper will focus on the aspect of technology utilization in both teaching and learning and cross-cultural dimensions of the project.

The project was originally conceived as means of creating an alternative to traditional study abroad and international exchange programs for part-time MBA students, non-traditional students whose work and family obligations do not allow for long-term international study. By introducing video-teleconferencing and web-based communication tools such as email, chat rooms and threaded discussions, students would be able to interact with counterparts from other parts of the world. They would acquire experience in using communications technology that is rapidly becoming standard in many work environments, and be able to evaluate the usefulness of different formats. In addition, they would experience first hand a transnational virtual environment. To create this environment simulations were designed for the student teams. The simulations provide the opportunity for engaging in a real-time exercise involving topics of international business, group process, cross-cultural negotiation, project management, and strategic alliance.

With these objectives in mind, we proceeded to collaborate with a faculty member from the Technical University of Munich. The decision was made to develop two scenarios, each with two student teams, one team from WSU and the other from TUM. The common theme would be transnational strategic alliance. The scenarios would be based in two industries, telecommunications and car audio, selected because of the trend in both toward major industry change. One of the scenarios (telecommunication) would be developed by the authors, Miller and Reddy, and the other (car audio) would be developed by Jorgen Samsioe from TUM. It was agreed that the stylistic difference would be beneficial to both groups of students, and that this arrangement might reveal differences in the approach of the designers that would be valuable to note. In fact, some differences were noted in both style and approach, and these will be addressed in the full paper.

A number of logistical issues had to be overcome in order to run the project. The first was the difference in the beginning and end of German and U.S. university terms. The TUM students begin their term in October and end in early February. WSU students begin the winter term in January and end in late April. Consequently, there would be a month window during which the simulation could be conducted. A second issue was the time difference, with Munich being six ahead of Detroit. Although inconvenient, this was not considered a "problem" per se because it is a reality that both teams would deal in a "real world" business environment. In addition, the fact that the simulation would be "technology-mediated" (i.e., heavily dependent on the use of web-based course tools that included email, chat, electronic document posting and threaded discussion) to some extent mitigated the six hour time difference.

Other differences between the student teams were noted, such as their previous experience with web-based communication tools (threaded discussion and chat sessions), video teleconferencing and Interactive Distance Learning (IDL). WSU students, especially at the MBA level, are quite familiar with the IDL format in the classroom. Most of them have also had previous experience with Blackboard CourseInfo, the software that would be used as the web-based communications platform. TUM students, on the other hand, had little or no experience with this technology prior to beginning the simulation. A major consideration was the fact that TUM students would not have the professional experience that the WSU students brought to the experience. As with most German students in graduate programs, the TUM students are engaged in full time study. WSU students are engaged in full time employment, and are taking one or two courses per semester, typically in the evening or on Saturdays. However, the fact that TUM students are in an MBA program mitigated this difference to some extent. The TUM MBA, modeled after U.S. programs, is quite unusual in German higher education. German universities, especially public universities, do not offer MBA programs, but instead, follow the German system of higher education that includes five years of "undergraduate" study culminating in the "diplom". Business education at the graduate level, which we know in the U.S. as a Master in Business Administration, is very rare in Germany.

TUM students have made a number of trips to the U.S. during breaks from their classes to conduct benchmarking with U.S. universities, studying specific areas in which to compare and rate the TUM MBA with U.S. university MBA programs. It was during one of these benchmarking trips that the first contact with TUM students was made, and the pilot project originated from that contact.

In addition to describing the project and its genesis, the paper will also examine the issues of the design and use of experiential learning and simulation in business education, technology-mediated learning, and cross-border virtual teams. In the evaluating the course, four dimensions will be examined: technology, the simulation scenarios, literature reviewed by students and the study tour component. For the purpose of this paper we will focus on the role of the technology in this learning experiment.

Global Perspectives in Management Survey

Thank you for taking the time to complete this survey. Please use a pen or pencil to write or mark your response. The survey is broken down into 4 sections: (1) Effectiveness of Communication, (2) Timeliness of Communication, (3) Your Role in the Communication, and (4) Feedback on How Your Communication was Received.

Effectiveness of Communication

1.1. Please rate the OVERALL effectiveness of the communication within the entire simulation?
1 = Ineffective
to
7 = Very Effective
○1 ○2 ○3 ○4 ○5 ○6 ○7
Top | Next

1.2. Please rate how effective each mode of communication was in the simulation. If you did not participate in an element please indicate your response based on your perception through conversations with others.
1 = Very Low Effectiveness
to
7 = Very High Effectiveness

	1	2	3	4	5	6	7
Email	○	○	○	○	○	○	○
Video Conference	○	○	○	○	○	○	○
Chat	○	○	○	○	○	○	○
Face to Face Meeting	○	○	○	○	○	○	○
Phone Conversation	○	○	○	○	○	○	○
Course Info (Personal Web Pages)	○	○	○	○	○	○	○
Course Info (Threaded Discussion)	○	○	○	○	○	○	○

Top | Next | Back

1.3. Please rate the OVERALL effectiveness of the communication within your class?
1 = Ineffective
to
7 = Very Effective
○1 ○2 ○3 ○4 ○5 ○6 ○7
Top | Next | Back

1.4. Please rate how effective each mode of communication was within your class? If you did not participate in an element please indicate your response based on your perception through conversations with others.

1 = Very Low Effectiveness
to
7 = Very High Effectiveness

	1	2	3	4	5	6	7
Email	O	O	O	O	O	O	O
Video Conference	O	O	O	O	O	O	O
Chat	O	O	O	O	O	O	O
Face to Face Meeting	O	O	O	O	O	O	O
Phone Conversation	O	O	O	O	O	O	O
Course Info (Personal Web Pages)	O	O	O	O	O	O	O
Course Info (Threaded Discussion)	O	O	O	O	O	O	O

1.5. Please rate the OVERALL effectiveness of the communication within your subgroups (ie Finance, Market Research, etc.)?

1 = Ineffective
to
7 = Very Effective

O 1 O 2 O 3 O 4 O 5 O 6 O 7

1.6. Please rate how effective each mode of communication was within your sub-groups? If you did not participate in an element please indicate your response based on your perception through conversations with others.

1 = Very Low Effectiveness
to
7 = Very High Effectiveness

	1	2	3	4	5	6	7
Email	O	O	O	O	O	O	O
Video Conference	O	O	O	O	O	O	O
Chat	O	O	O	O	O	O	O
Face to Face Meeting	O	O	O	O	O	O	O
Phone Conversation	O	O	O	O	O	O	O
Course Info (Personal Web Pages)	O	O	O	O	O	O	O
Course Info (Threaded Discussion)	O	O	O	O	O	O	O

1.7. How often were you unable to communicate due to technology Issues?

    ◯ Never ◯ Sometimes ◯ Most of the Time ◯ Always

1.8. Overall, which mode of communication was most effective in your opinion?

    [   ]

Timeliness of Communication

2.1. Please rate how frequent each mode of communication was used in the simulation. If you did not participate please indicate your response based on your perceptior: through conversations with others.

1 = Very Infrequent
to
7 = Very Frequent

	1	2	3	4	5	6	7
Email	◯	◯	◯	◯	◯	◯	◯
Video Conference	◯	◯	◯	◯	◯	◯	◯
Chat	◯	◯	◯	◯	◯	◯	◯
Face to Face Meeting	◯	◯	◯	◯	◯	◯	◯
Phone Conversation	◯	◯	◯	◯	◯	◯	◯
Course Info (Personal Web Pages)	◯	◯	◯	◯	◯	◯	◯
Course Info (Threaded Discussion)	◯	◯	◯	◯	◯	◯	◯

2.2. Please rate your satisfaction with the timeliness in which you received feedback from your German Counterparts

    ◯ Poor ◯ Fair ◯ Good ◯ Very Good ◯ Excellent

2.3. Please rate your satisfaction with the timeliness in which you received feedback from your classmates (internally)

    ◯ Poor ◯ Fair ◯ Good ◯ Very Good ◯ Excellent

2.4. Please rate your satisfaction with the timeliness in which you received feedback from your sub-groups?

○ Poor ○ Fair ○ Good ○ Very Good ○ Excellent

Top | Next | Back

2.5. Overall, which mode of communication was used most frequently?

Top | Next | Back

Your Role in the Communication

3.1. Would you have organized the communication in a different way? (YES/NO)

Top | Next | Back

3.2. If yes, How?

Top | Next | Back

3.3. Did you feel that your were able to actively participate in the simulation (YES/NO). Explain why or why not.

Top | Next | Back

3.4. Which items contributed to you being a good communicator with all parties in the simulation?

☐ Having knowledge of a foreign language

☐ Ability to express feelings accurately

☐ Ability to read between the lines

☐ Openness to new values, attitudes, experiences

☐ Ability to give negative feedback appropriately

☐ Ability to accept negative feedback

☐ Technical knowledge of the business case

☐ Ability to be concise

☐ High level of enthusiasm

☐ Being a good listener

☐ Other, Explain _____

Feedback on How Your Communication was Received

4.1. How often did your communication achieve its intended purpose?
○ Never ○ Sometimes ○ Most of the Time ○ Always

4.2. Were you able to get your point across when communicating with the others:
○ Never ○ Sometimes ○ Most of the Time ○ Always

4.3. What would you do (personally) to get better response from your communication?

Submit form   Clear form

Main - Appendix A

Please rate the overall effectiveness of the communication within the entire simulation

1.1

Answer Scale	# of Respondents	Weight	Percentage
Ineffective 1	0	0	0%
2	0	0	0%
3	0	0	0%
4	2	8	20%
5	4	20	40%
6	4	24	40%
Very Effective 7	0	0	0%
Weighted AVG	10	5.2 avg	

Please rate how effective each mode of communication was in the simulation

1.2

	Email	Video	Chat	Face/Face	Phone	CI/Web	I/Discussion
1	0	0	0	0	1	2	2
2	1	1	3	0	1	1	0
3	1	0	1	0	0	2	1
4	3	0	4	0	3	3	2
5	2	3	1	1	2	0	3
6	2	3	2	2	2	2	1
7	2	4	0	8	1	1	2
Weighted AVG	4.8	5.7	3.8	6.6	4.4	3.7	4.4

Overall avg. 4.8
Std Dev 1.0

Overall Effectiveness within the class

1.3

Answer Scale	# of Respondents	Weight	Percentage
Ineffective 1	0	0	0%
2	0	0	0%
3	0	0	0%
4	2	8	18%
5	2	10	18%
6	5	30	45%
Very Effective 7	2	14	18%
Weighted AVG	11	5.6	

Mode Effectiveness within the class

1.4

	Email	Video	Chat	Face/Face	Phone	CI/Web	I/Discussion
1	0	2	0	0	1	2	1
2	0	1	2	0	0	0	0
3	0	0	1	0	1	3	1
4	2	0	2	0	1	0	0
5	2	2	4	1	6	3	3
6	3	4	1	5	0	2	3
7	4	2	0	5	2	1	3
Weighted AVG	5.8	4.7	4.1	6.4	4.7	4.1	5.3

Overall avg 5.0
Std Dev 0.8

Subgroup Effectiveness

1.5

Answer Scale	# of Respondents	Weight	Percentage
Ineffective 1	0	0	0%
2	2	4	20%
3	1	3	10%
4	1	4	10%
5	1	5	10%
6	3	18	30%
Very Effective 7	2	14	20%
Weighted AVG	10	4.8	

Mode Effectiveness within subgroups

1.6

	Email	Video	Chat	Face/Face	Phone	CI/Web	I/Discussion
1	0	2	2	0	1	2	1
2	0	1	1	0	0	0	0
3	1	1	1	0	3	1	1
4	2	0	3	0	0	1	1
5	2	3	1	2	2	2	4
6	4	2	1	2	3	1	1
7	4	1	0	8	2	2	2
Weighted AVG	5.6	4.1	3.3	6.5	4.7	4.3	4.8

Overall avg 4.8
Std Dev 1.0

Technology issues encountered

1.7 Answer Scale:	# of Respondents	
Never	1	9%
Sometimes	10	91%
Most of the Time	0	0%
Always	0	0%
	11	

Overall which mode

1.8 Answers:	# of Respondents	
Face to Face	6	60%
Course Info	4	40%
	10	

Frequency of use for communication

2.1	Email	Video	Chat	Face/Face	Phone	CI/Web	I/Discussion
1	0	1	0	3	3	3	3
2	0	4	2	1	2	2	1
3	0	4	2	0	0	1	0
4	0	2	4	2	3	2	2
5	2	0	3	3	1	0	1
6	4	0	1	1	1	2	1
7	5	0	1	1	1	1	3
Weighted AVG	6.3	2.6	4.2	3.7	3.4	3.4	4.1

Overall avg	3.9
Std Dev	1.1

Timeliness of Feedback from German Couter Parts

2.2 Answer Scale:	# of Respondents	
Poor	8	73%
Fair	3	27%
Good	0	0%
Very Good	0	0%
Excellent	0	0%
	11	

Timeliness of Feedback within Class

2.3 Answer Scale:	# of Respondents	
Poor	0	0%
Fair	1	9%
Good	3	27%
Very Good	6	55%
Excellent	1	9%
	11	

Timeliness of Feeback with Sub-Groups

2.4 Answer Scale:	# of Respondents	
Poor	0	0%
Fair	3	27%
Good	3	27%
Very Good	4	36%
Excellent	1	9%
	11	

Most Frequently used mode

2.5 Answers:	# of Respondents
Face to Face	1
Course Infor/Discussion Threads	3
File Exchange	1
Phone Chats	1
Email	4

Should communication been organized differently

3.1 Answers:	# of Respondents	
Yes	7	70%
No	3	30%

How should communication been organized

3.2 Answers:	# of Respondents
Small Groups	1
More clear objectives	1
More technological options	6

Were you able to actively participate

3.3 Answers:	# of Respondents	
Yes	8	73%
No	3	27%
	11	

Why

3.3 - Part 2	# of Respondents	
Pay attention to sub group feedback	1	13%
Too much re-hashing of discussions	1	8%
Front line issues (participant vs. lead)	6	50%
	8	

Items contributed to you being a good communicator

3.4	# of Respondents	
Having Knowledge of Foreign Language	2	4%
Ability to express feelings accurately	4	9%
Ability to read between the lines	6	13%
Openness to new values, attititudes	8	17%
Ability to give negative feedback	2	4%
Ability to Accept Negative feedback	5	11%
Technical knowledg of Buz Case	2	4%
Ability to be concise	3	7%
High level of enthusiasm	6	13%
Beign a good listener	8	17%
Other	None	
	46	

Average 4.6
Std Dev 2 2449944

How often did your communication achieve its intended purpose

4.1 Answer Scale:	# of Respondents	
Never	0	0%
Sometimes	5	45%
Most of the Time	5	45%
Always	1	9%
	11	

Were you able to get your point across

4.2 Answer Scale:	# of Respondents	
Never	0	0%
Sometimes	3	27%
Most of the Time	6	55%
Always	2	18%
	11	

What can you do personally to be a better communicator

4.3 Suggestions:
Get an acknowledgement for receipt of communication
Listen better
More face to face communication
Deliver better quality info
Have all meetings outside of class so we don't disrupt class
Understand where the Germans are coming from
More follow up with classmates and Germans
State desired outcome first
Aks more questions of Germans and Classmates

Oakland - Appendix B

Please rate the overall effectiveness of the communication within the entire simulation

1.1

Answer Scale	# of Respondents	Weight	Percentage
Ineffective 1	0	0	0%
2	1	2	7%
3	2	6	13%
4	4	16	27%
5	2	10	13%
6	5	30	33%
Very Effective 7	1	7	7%
Weighted AVG	15	4.7 avg	

Please rate how effective each mode of communication was in the simulation

1.2

	Email	Video	Chat	Face/Face	Phone	Cl/Web	I/Discussion
1	0	0	0	0	0	4	5
2	0	0	2	1	1	3	3
3	0	3	3	1	1	4	3
4	4	1	1	1	2	2	2
5	3	2	4	2	0	2	3
6	4	4	3	3	8	1	0
7	5	5	3	8	1	0	0
Weighted AVG	5.6	5.5	4.8	5.8	5.2	2.9	2.7

Overall avg. 4.6
Std Dev 1.2

Overall Effectiveness within the class

1.3

Answer Scale	# of Respondents	Weight	Percentage
Ineffective 1	0	0	0%
2	0	0	0%
3	1	3	6%
4	5	20	29%
5	5	25	29%
6	6	36	35%
Very Effective 7	0	0	0%
Weighted AVG	17	4.9	

Mode Effectiveness within the class

1.4

	Email	Video	Chat	Face/Face	Phone	Cl/Web	I/Discussion
1	0	0	1	0	1	3	6
2	0	0	4	0	0	5	1
3	0	1	2	1	1	4	3
4	3	3	2	3	0	0	3
5	3	1	2	1	4	3	1
6	6	6	4	3	8	1	2
7	4	4	1	8	1	0	0
Weighted AVG	5.7	5.6	4.0	5.9	5.3	2.9	2.9

Overall avg 4.6
Std Dev 1.2

Subgroup Effectiveness

1.5

Answer Scale	# of Respondents	Weight	Percentage
Ineffective 1	0	0	0%
2	2	4	11%
3	0	0	0%
4	3	12	17%
5	3	15	17%
6	8	48	44%
Very Effective 7	2	14	11%
Weighted AVG	18	5.2	

Mode Effectiveness within subgroups

1.6

	Email	Video	Chat	Face/Face	Phone	Cl/Web	I/Discussion
1	0	3	3	0	0	2	6
2	0	0	1	0	1	2	1
3	2	2	3	1	0	6	3
4	0	2	1	1	2	1	1
5	4	2	1	1	0	0	1
6	4	2	2	3	5	3	1
7	6	1	1	10	7	0	0
Weighted AVG	5.8	3.8	3.5	6.3	5.9	3.3	2.5

Overall avg 4.4
Std Dev 1.4

Technology issues encountered

1.7		
Answer Scale:	# of Respondents	
Never	2	13%
Sometimes	11	69%
Most of the Time	3	19%
Always	0	0%
	16	

Overall which mode

1.8		
Answers:	# of Respondents	
Face to Face	4	25%
Email	11	69%
File Exchange	1	6%
	16	

Frequency of use for communication

2.1	Email	Video	Chat	Face/Face	Phone	CI/Web	I/Discussion
1	0	0	1	1	1	8	7
2	0	6	1	1	1	2	2
3	1	6	6	2	4	2	3
4	1	1	4	3	1	2	2
5	2	1	2	2	4	0	1
6	1	1	1	3	4	1	1
7	11	1	1	4	1	1	0
Weighted AVG	6.3	3.3	3.8	4.8	4.4	2.4	2.4

Overall avg	3.9
Std Dev	1.3

Timeliness of Feedback from German Couter Parts

2.2		
Answer Scale:	# of Respondents	
Poor	1	6%
Fair	1	6%
Good	6	38%
Very Good	5	31%
Excellent	3	19%
	16	

Timeliness of Feedback within Class

2.3		
Answer Scale:	# of Respondents	
Poor	1	6%
Fair	3	19%
Good	5	31%
Very Good	3	19%
Excellent	4	25%
	16	

Timeliness of Feeback with Sub-Groups

2.4		
Answer Scale:	# of Respondents	
Poor	2	13%
Fair	1	7%
Good	5	33%
Very Good	3	20%
Excellent	4	27%
	15	

Most Frequently used mode

2.5	
Answers:	# of Respondents
Email	17

Should communication been organized differently

3.1		
Answers:	# of Respondents	
Yes	9	53%
No	8	47%

How should communication been organized

3.2	
Answers:	# of Respondents
Small Groups	2
Face to Face	1
Rec. articles beforehand	1
More clear objectives	1
More open chat sessions	1
More technological options	1

Were you able to actively participate

3.3		
Answers	# of Respondents	
Yes	4	29%
No	10	71%
	14	

Why

3.3 - Part 2	# of Respondents	
Time constraints	1	8%
No feedback from front line	5	42%
Unreliable technology	1	8%
Front line issues (participant vs. lead)	5	42%
	12	

Items contributed to you being a good communicator

3.4	# of Respondents	
Having Knowledge of Foreign Language	1	1%
Ability to express feelings accurately	9	13%
Ability to read between the lines	8	12%
Opennes to new values, attitudes	9	13%
Ability to give negative feedback	6	9%
Ability to Accept Negative feedback	7	10%
Technical knowledg of Buz Case	6	9%
Ability to be concise	5	7%
High level of enthusiasm	9	13%
Beign a good listener	7	10%
Other	Common Interests, Flexible, Ability to filter info, Patience.	
	67	

Average 6.7
Std Dev. 2.3259407

How often did your communication achieve its intended purpose

4.1		
Answer Scale:	# of Respondents	
Never	0	0%
Sometimes	1	6%
Most of the Time	12	75%
Always	3	19%
	16	

Were you able to get your point across

4.2		
Answer Scale:	# of Respondents	
Never	0	0%
Sometimes	1	6%
Most of the Time	12	75%
Always	3	19%
	16	

What can you do personally to be a better communicator

4.3 Suggestions:
Confront front line and ask for more input.
Give time limits and deadlines for responses
Get an acknowledgement for receipt of communication
Listen better
Organize class better
More face to face communication
Less research dump
Smaller class
Deliver better quality info

The Deal is the Final Exam

Business Students completed their final exam in front of the Press Corps

By Philip Wolff
Translated by Robert Tscherniwetz

In the past week, Munich student Johann Jauss had on several occasions stayed up until 2 am communicating with his US Business Partner over the Internet. Now in the presence of the International Conference attendees, he brokers a multi-billion dollar deal: The European Mobile Communication Giant "Giganto Telecom" is taking over the US Firm "Babylon Brook Wireless" in an attempt to become the first global Mobile Phone Company that uses the GSM standard. The audience applauds. Jauss's American colleague and new business partner Kurt Hall from Detroit ponderously places the end tips from his eyeglasses in the crook of his mouth and lowers his head. On its own, the duo entertains questions from the audience: "The synergetic effects won't take hold until 2004? What provider would want to wait that long?" – "Will Babylon customers in Europe now have to pay Giganto's surcharges?"

Jauss and Hall are able to answer all of these questions. That is the main point. For this fictitious Press Conference is really a Final Exam: the last hurdle in achieving a Master of Business Administration (MBA) degree. So real was the virtual situation, that eight of the eleven students of the Technical University of Munich (TUM) suffered from the stress. Demerits were also given—even to the students from Wayne State University on the Germany Study Tour. After the presentations (exams) were concluded and the notebooks were closed, the students meet at a Brauhaus. "We recommend Schweinshaxe" serves as the introduction to the cultural exchange that to some didn't come as easy on the business level as it did for Jauss and Hall.

Transatlantic Merger

"Chats, telephone calls, video conferences—we were never in close proximity to one another," critically assessed the two students of the successful merger negotiation that lasted weeks. Dirk Artelt, a member of a Student Team that failed, attributes the failure "to different strategies that we and our American partners had." The assignment was the same for all groups involved: establish a transatlantic merger of fictitious companies with their American counterparts; and together, this cooperation should be able to withstand the technological scrutiny of Jörgen Samsioe, who is at the TUM Department of General and Industrial Business Administration.

Dirk Artelt's Team could not establish an agreement with their American Counterparts, because of the different cultural stances. Maybe they are correct, since this was evident in the way both failed teams presented their companies. The German students were adamant in their position: "No, that's not true," counters Alexander Lieber, with a raised index finger deflecting the Proctor's comments. For Todd Eltschlager, the presenter from Detroit, the tone was much different: "Excellent question!" –an obvious compliment to the individual that posed the vexing question.

For two years now, TUM has participated in this US Business Culture arrangement. Today the first crop of MBA students has completed their program: engineers and scientists have also become managers. Just like Helmut Schönenberger, who is an MBA student from the first batch. TUM can thank him for providing the contacts to Detroit. "I was in the US two years ago doing research for a Study Project," he explains, "to find ways to improve our university." Final Exams in the form of Press Conferences is one example—another is the virtual merger of fictitious firms with Giganto Telecom. Phillip Wolff