

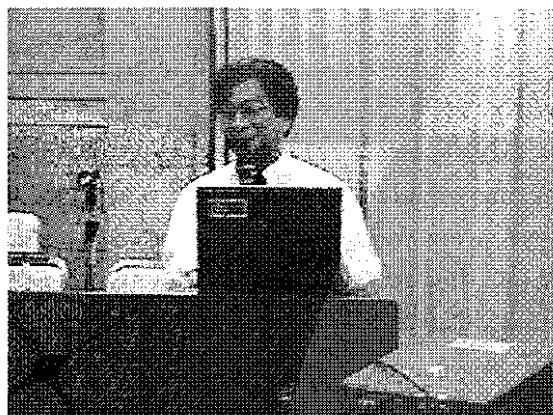
Initial Remark

Virtual University - Future of our Universities?

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I am Tsunemi Tanaka, Professor at Research Center for Higher Education, Kyoto University. I am glad to held this international conference with receiving so may audiences. Nowadays, there is an inevitable and stable trend in higher education. With development of information technology, ways of teaching and leaning and the form of university are rapidly changing. The terms "e-Learning" or "online course"



are often heard as a new and hopeful way of university education in 21st century. Virtual University, which has no specific building or campus as the extreme form of new education, is already being actualized.

Now the online education and VU seems to be taking the place of the traditional face-to-face university education. In this symposium, we will discuss the comprehensive question: "Is Virtual University (VU) a future of our university?". In order to answer this question, we have to begin with the inquiry of what university means to a society. Of course, many in society presuppose the meaning of university, because we have some acquaintance with universities in daily life. But an inquiry into this presupposition should be done in the beginning.

In the hierarchy of school system, universities have occupied the highest position. It had been *the community of the excellence* consisting of representative intellectuals and selected students (who were from a relatively narrow age group). At the same time, universities have played a very important role in modernization of societies.

Recent years, with the advent of the *universal access stage* (Trow, M.) and the extreme democratizing in education (through expansion of educational opportunities), university have come to play more significant role in our school system. But, at the same time, through universal access and the mega trend towards a highly developed industrialized and information society, university seems to be losing its exclusive position as an intellectual communities. (Strictly speaking, universities now vary from the institutes for mass education to the institutes of excellence with selected students and

representative intellectuals.) Institutionalized communities of intelligence, which act as agents for socio-cultural and economical change, have been established beyond universities toward other various social organizations. Some people think of VU as a product of such expansion.

Let's now return to the initial question: Is VU the future of our universities or not? It is true that VU is a quantitative expansion of traditional university. But, as VU often brings depersonalization of human relationships in the university, it is sometimes seen to be the repression or negation of the proper potentialities of university as a community of intellectuals. Accordingly, some people don't believe VU has its own future. Besides, they reproach VU for its negation of excellent traits of modern universities (especially in Germany) which should be the academic research-education communities (Humboldt, W.v.).

On the other hand, some believe in the future of VU. For them VU is actualizing the potentialities of higher education. They say that the potentialities are being actualized through innovation in information technology and through interweaving various learning webs based on technology. Here, VU is believed as the latest and best phase of universal access, i.e. modernization and democratization of higher education systems.

The online learning on which VU is based seems to be differentiating into two types, the online learning *as the complement to the present school system (modern university)* and that *as the breakthrough of the system*. We can thus categorize the relationship of VU to the modern university into three models shown in Table 1. In Table 1, *Model N* means "Negative relationship model" and *Model P* means "Positive relationship model". Additionally, we can divide *Model P* into two different models, *Model P1* (complement model) and *Model P2* (breakthrough model).

Table 1: Three Models of Relationship of VU to the Modern University

| Model N | Model P1 | Model P2 |
|---|---------------------------------|-----------------------------------|
| Negation (replacement) of modern university | Complement of modern university | Breakthrough of modern university |

When compared with the USA, Japan is behind in constructing and actualizing VU. Nevertheless, nowadays we can find some initial trials to actualize these three models in Japan. Along with the emergence of a highly organized cyber-culture and the advent of globalization, the Japanese higher education system is rapidly being reorganized. In addition, Japanese universities are now on their way to universal access as the expansion

of school system after World War II. In this context, e-Learning or VU seems to be a vital tool for this rapid expansion of our universities. But at the same time, we are facing a problem caused by this new style of education. As the educational system is reorganized with depending on the cyber media, face-to-face interactions in the daily university classes seem to be losing their priority as a place for learning and development. Actually, in some universities, students begin to disappear from university campuses. Here in Research Center for Higher Education at Kyoto University (RCHE, Kyoto University), we have engaged in research related with the presented problems.

Our aim is to construct comprehensive teaching and learning systems in higher education. Since the year 2001, one of our latest concerns is to further the understanding of online education. The theoretical basis for the study has been founded in some preceding researches based on our practice, i.e. Open Laboratory Class, TIDE Project, Faculty Development utilizing SCS (Space Collaboration System), and KKJ Project. I will briefly explain these projects.

Open Laboratory Class, ongoing since 1996, is assigned to a course entitled "Lifecycle and Education" in the general education curriculum of our university. As well as a regular course for students, this class provides teachers with an opportunity for faculty development by class observation and the following discussion. During the class, the center's staffs record the activities by videotaping and through participant observation. The collected data are then utilized for the development of the teaching methods and the improvement of the evaluation system. Through this project, we intend to interweave interactions among teachers, students and observers to establish a mutual learning community. In this challenge, we have gradually come to realize that this community might be organized more effectively if we introduce the aid of cyber media tools such as web boards and E-mail.

TIDE Project is a challenge of distance education in synchronous, trans-Pacific settings between Kyoto University and UCLA. Students at both colleges took the same class connected by the online system, in which professors from the two institutions gave lectures. Students at both sides can see and hear the other simultaneously. In this project, there were some cultural barriers against interacting with each other in the virtual situation. We have attended to get over them through various ways, i.e. through improving the system hardware, developing more appropriate teaching methods and providing the participants with an off-line meeting.

In Faculty Development utilizing SCS, we have faced the *poor experience* through online. The experience provided by SCS cannot be compared with the productive *rich experience* of face-to-face interactions.

Through these projects, we have been studying on the factors which are obstacles for

online collaborative learning; such as cultural barriers and a poor experience, while trying to find ways to get over them.

KKJ (Keio-Kyoto Joint Seminar) Project is an experimental joint seminar composed with a class of our Center and of Keio University. In addition to the usual classes which were given separately at each side, we have a common web board used to interact with each other. The record of both classes and the free descriptions of students are put on this web board. Therefore, students on both sides can know what is going on in the other class and also can interact whenever they want. At the end of the term, students of both classes come together for 3 days and coordinate several self-managed sessions. This is the first time for them to meet other university's students in a face-to-face situation. Thus, with KKJ, we have been trying to establish the most effective collaboration of offline and online classes. Throughout the three years of this project, students have successively shown amazing creativity and productivity, therefore we think this project has succeeded in students' development.

These research projects, Open laboratory Class, TIDE Project, Faculty Development utilizing SCS and KKJ Project form the basis for our current research on VU. Yet in these projects, we haven't always regarded online education as positive. We presupposed that the quality of the experience through online is not good. In fact, we assumed that the "poor" online experience had to be complemented with the "rich" offline one. One can point out that this presupposition lies under the design of KKJ which hybridize off-line and online. In this symposium, we would like to discuss if this assumption is appropriate or not, and search for the educational potentialities of e-Learning and VU.

The discussion should start with the fundamental reflection on our naive understanding of the innovations in media technology. Please remember the influence of innovations in media is not restricted to the technological sphere of society. Beyond that, it raises changes in various phases of human life, such as communication, language, relationship in daily life, educational relationship, human relatedness to their relationships, and self-knowledge of human themselves.

Comenius, J.A., the first designer and the founder of the modern school, coined the term "didaco-graphia" to describe the new educational relationship brought about in schools in his time. Here, he used a peculiar metaphor of the printing press which was a leading technology at that time. As this case suggests, an innovation in media (the printing press) changes school system, and this change occurs not only in the sphere of technology, but also in various spheres such as teaching-learning methods, administration, the relatedness of school members to such new relationships, the self-understanding of their activities and themselves and so on.

Nowadays, we can find various trials to take off from the modern educational

relationships, because modern school systems suffer from serious dysfunction. From this point of view, a new innovation in media may bring about two different results in our present school system. In one case, media innovation would facilitate repairing the dysfunction of the traditional school system, and in the other case it may realize other potentialities of the school system going beyond a traditional one.

Consequently, we can understand VU with two models as shown in Table2. The roles of VU in school education are summarized in “*Quantitative Complement-Expansion Role* (to overcome the distance and poverty that hindering enrolment)” and “*Qualitative Innovation Role* (to organize the network of learners as well as individualizing learning)”. Corresponding to each of these roles, there are two modes of learning, i.e. “*Mode of Traditional Learning* (learning as a transmission of knowledge to students)” and “*Active-Collaborative Learning* (learning as the students' active-collaborative participation in the creation of knowledge)”. Further, these two modes of learning correspond with two educational functions of the Internet, a “*Function as a Learning Tool*” and as a “*Learning Settings*” (see Table 2). Comparing Table 2 with Table 1, we can find that *Model 1* corresponds with *Model P1*, and *Model 2* with *Model P2*.

Table 2: Two Models of VU

| | Model1 | Model2 |
|----------------------------------|--|--|
| Roles in School Education | Quantitative Complement-Expansion | Qualitative Innovation |
| Mode of Learning | Transmission of Knowledge to students Individualized Learning | Students' Participation in Creation of Knowledge Collaborative Group Learning |
| Educational Function of Internet | Function as a Learning Tool | Function as a Learning Settings |

Both *Model 1 (P1)* and *Model 2 (P2)* seem to give positive answer to our initial question, “Is VU the future of our universities?”. But, the difference is that the former expect VU as the complement, but the latter expect it as the breakthrough. The latter would criticize the former on a charge of its individualized-alienated mode of learning, the lack of learners' communities, and the negation of the totality of learners' existences in

which their bodies are important. These criticisms seem to be the background of statements like this, "A correspondence course should be complemented with a face-to-face schooling" or "In online courses, it's very difficult to provide good guidance or sufficient student services". So the general transcription claims that online course should collaborate with offline one.

But VU should not be regarded as the complement or substitution for the present school system. As long as the virtual is recognized as the copy or the second-rate reality, VU cannot be emancipated from the unreflected prejudice. We should reconsider the virtual not as a copy, but as *another reality*.

In recent years, Japanese universities have been subjected to massive pressure for reform under the conditions of the advent of universal access, the severe decrease of young population, the globalization, the chronic depression of the economy, and the financial crisis of the government. We are strongly expected to reorganize our universities into efficient organizations like modern school, which has strictly divided grades or forms consisted of homogenous learners in their school career, and also has a rigid curriculum ordered from easy content to difficult one, and the control of space and time of learners.

If we follow Illich's term "Deschooling of the Schooling Society", the recent trend of reorganizing university into modern school can be called as "schooling". This trend toward schooling is expected to answer to the quality assurance of university education. Thus, schooling means curriculum reform, faculty development and various kinds of educational evaluations. These reforms are being carried out hastily through a large supply of personnel and material resources.

On the contrary to this trend, Japanese primary and secondary schools have recently been suffering from dysfunction caused by over-schooling, and is struggling toward "deschooling". In fact, we are gradually receiving new student types who learned at such deschooled elementary and secondary schools. This means that Japanese universities are now facing a new problem of managing the conflict between schooling and deschooling.

Coping with the conflict between schooling and deschooling, the expected role for VU is now encountering balance-problems, not alternative-problems, between *Model 1 (P1)* and *Model 2 (P2)* (see Table 1 and 2).

Through the following presentations, we will critically discuss the educational, socio-cultural and historical meanings of VU in pursuit of the possible ways of answering our initial question. The following presentations will give a productive experience through combining experiences of USA, Mexico and Japan. I'm sure that the discussions will bring reflection on our presupposition on VU.

VIRTUAL UNIVERSITY - FUTURE OF OUR UNIVERSITIES? -

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1

Comprehensive Question : *Is the Virtual University (VU) a future of universities?*

- Recent diffusion of online education
 - e-learning or online course are inevitable and stable trends in higher education for 21st century
- online education and VU
vs.
face-to-face education

2

What have universities meant to a society?

- Traditionally, University
 - has occupied the highest position in the hierarchy of school system.
 - had been *the community of the excellence* consisting of representative intellectuals and selected students
 - has played an important role in modernization of societies.

3

The arguments against VU

- VU often brings depersonalization of human relationships in universities
- VU is the repression or negation of the popular potentialities of university as a community of intellectuals

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The arguments for VU

- The advent of the *universal access stage* (Trow, M.) in Japan
 - the extreme democratizing in education through expansion of educational opportunities
- VU is the latest and best phase of universal access, i.e. modernization and democratization of higher education systems

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Three Models of Relationship of VU to the Modern University (Table 1)

| Model N | Model P1 | Model P2 |
|--|--|--|
| <i>Negation (replacement)</i> of modern university | <i>Complement</i> of modern university | <i>Breakthrough</i> of modern university |

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The Experience of Kyoto RCHE (1) *Open Laboratory Class*

- "Lifecycle and Education"
 - in the general education curriculum of our university.
- intend to interweave interactions among teachers, students and observers to establish a mutual learning community
- The community might be organized more effectively with the aid of cyber media tools such as web boards and E-mail.

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The Experience of Kyoto RCHE (2) *TIDE Project*

- Distance education in synchronous, trans-Pacific settings between Kyoto University and UCLA.
- Cultural barriers of interaction in the virtual situation are experienced
- tried to get over cultural barriers through
 - improving the system hardware,
 - developing more appropriate teaching methods
 - providing the participants with an off-line meeting.

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The Experience of Kyoto RCHE (3) *Faculty Development utilizing SCS*

- SCS : Space Collaboration System
 - Synchronous interaction through satellite
- faced *poor experience* through online learning which cannot be compared with the productive richness of experience of face-to-face interactions

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The Experience of Kyoto RCHE (4) *KKJ (Keio-Kyoto Joint Seminar) Project*

- An experimental joint seminar composed with a class of our Center and of Keio University.
- Attempting to establish the most effective collaboration of offline and online classes.

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Projects Premises

- We have not always regarded online education as positive.
- We presumed that the *poor online experience* had to be complemented with the *rich offline one*.
- ⇒ The discussion should start with the fundamental reflection of this our understanding

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Multiple effects of technology

- "didaco-graphia (Comenius, J.A.)
 - describing the new educational relationship brought about in schools in his time
 - a peculiar metaphor of the printing press which was a leading technology at that time
- An innovation in media (the printing press) changes school system
- This change occurs not only in a sphere of technology, but also in various spheres such as
 - teaching-learning methods, administration, the relatedness of school members to such new relationships.....

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Do new innovations in media technology mediate the dysfunction of our modern school systems ?

- Japanese modern school system clearly suffers from serious dysfunction
- A new innovation in media might contribute
 - to help repairing the maladies of the traditional school system
 - to realize other potentialities of the school system extending beyond a traditional one

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The roles of VU in school education

Model 1

- *Quantitative Complement-Expansion Role*
 - overcome the distance and disparity that hinders enrolment
 - *traditional learning* as a transmission of knowledge to students

Model 2

- *Qualitative Innovation Role*
 - organize the network of learners as well as individualizing learning
 - *Active-Collaborative Learning* as the students' active-collaborative participation in the creation of knowledge

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Two Models of Online Education

| | <i>Model 1</i> <i>Model P1</i> | <i>Model 2</i> <i>Model P2</i> |
|----------------------------------|--|--|
| Roles in School Education | *quantitative complement-expansion | *qualitative innovation |
| Mode of Learning | *transmission of knowledge to students *Individualized learning | *students' participation in creation of knowledge *collaborative group learning |
| Educational function of Internet | *learning tool | *learning settings |

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The difference between Model 1 (P1) and Model 2 (P2)

- Both seem to give positive answers to the future of VU
- The difference of their expectation
 - **Model 1** expect VU as the complement
 - **Model 2** expect VU as the breakthrough
- *Model 2* criticize *Model 1* for
 - individualized-alienated mode of learning
 - the lack of learners' communities
 - the negation of the totality of learners' experiences in which their bodies play important roles.

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New Conflict Facing Japanese Universities

- university
 - Recent tend of reform is toward "schooling".
- primary and secondary school
 - have been suffering from problems caused by over-schooling,
 - Recent struggling toward "deschooling".
- → Conflict between schooling and deschooling

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The Expectation for VU

- VU should cope with the conflict between schooling and deschooling,
 - balance-problems, not alternative-problems
- Through the following presentations, we will critically discuss the educational, socio-cultural and historical meanings of VU in pursuit of the possible ways of answering our initial question

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