Interview with Professor Alexander Romiszowski ("Romi") Conducted online by Bailin Fang ("Berlin")

1. **Prof. Romi, we greatly appreciate your willingness for this interview. We know that you have make achievements in many aspects of educational technology and distance education. Is it possible to start by giving our Chinese readers some information about your background?**

Although born in Poland, I lived and was educated from an early age in the United Kingdom. I studied mathematics, physics engineering and education at Oxford University before starting my professional career, first in the technical and management area of the automobile industry and then in human resources development. After leaving the field of engineering for human resources, I entered ever deeper into the study of underlying theories and best practices of education, training, HRD, performance and productivity improvement, and the use of emerging technological solutions in these areas.

As a consequence, I have an Advanced degree in Educational Technology (Ph.D), and also a Master's degree in Engineering and post-graduate qualifications as a teacher. In addition I have studied the subjects that form the curriculum of the typical MBA program, and also many components of a computer science and software engineering program, though I did not study these in order to earn another degree, but in order to apply what I was learning to my job – first in large engineering organizations and later in consulting and project execution for large, medium and small organizations, and national governments.

. I have also taught undergraduate and graduate level courses and performed research in areas such as instructional design, media selection, distance learning, multimedia and human performance improvement. I have taught for over 20 years in the Instructional Design, Development and Evaluation (IDD&E) program at Syracuse University. My experience also includes consulting in areas such as productivity improvement, performance technology, ICT applications, OD, O&M, job redesign, supervision and management. Most recently, I have worked principally in developing country contexts.

The countries where I have worked include Argentina, Azerbaijan, Brazil, Chile, East Timor, Egypt, France, Hungary, India, Indonesia, Korea, Mozambique, Netherlands, New Zealand, Poland, Romania, Singapore, South Africa, Spain, Thailand, UK, USA, and Venezuela. Most of these projects were funded by international and national agencies, including British Council, DfID, EU, UNDP, UNESCO, USAID, WHO, and World Bank.

So far I have never worked on a project in China, but maybe an opportunity will come along one day. The projects closest to China have been in South Korea, where I consulted and ran courses at Samsung, LG and Kia/Hundai, and Singapore, where over a period of some ten years I regularly taught courses and executed consulting services at universities and polytechnics, the National Productivity Board, and the Singapore Institute of Management. Also, over the same ten year period, I worked for a month every year at Universitas Terbuka, Indonesia's Open University. More recently I undertook projects for the Indonesian Distance Learning Network (IDLN-PUSTEKKOM) and the South East Asia Ministers Open and Distance Learning Center (SEAMOLEC).

2. **You have written a number of books on designing or developing instructional systems. For instance, Designing Instructional Systems (1981), Instructional Development Paradigms (1997), and Case Studies in Instructional Design (2007).** (correction: this book has not been written – see explanation below in Question 3 - Romi) **You say that some of the same issues are visited again and again by researchers and scholars in the educational technology field. From your observation, what are some of the themes that have stayed the same? Have we found the answers for some good old debates?**

accustomed to the first incarnation of the Web, with its emphasis on information and knowledge organization, distribution and structuring, and are already grappling with the new technologies of Web 2.0 which focus on collaboration and "prosumption" – the integration of production and consumption of information, as in Wiki's, Blogs, Second-Life and most social networking environments. And we are told that Web 3.0 is just around the corner.

The one thing that is constant is continuous change. But the rate of change is not constant – it is accelerating. The impact on education is as great as it is on any other sector of human activity – perhaps greater, partly due to the special emphasis of information and communication research on the educational context, and partly because the most technology-savvy sector of society is the school-age youth, who have been born into the new realities and are accustomed to the newly available ICT tools almost from birth.

So, the pressures for technological change in the educational process come from both top-down and bottom-up. Caught in the middle is the teaching profession. As is typical in all change processes, here we find a few "techie" enthusiasts keen to try any new ideas, a slightly greater number of open-minded "early adopters" who are prepared to experiment and "learn new tricks", a much greater mass of "slow adopters" who have to be convinced, persuaded, reeducated, trained, and sometimes even disciplined, in order to change the habits of a lifetime, and also a small number of reactionaries and active "resisters" who will probably never adapt to a changing reality. But life goes on, one generation takes over from another and the one thing that is certain is that change will take place.

The question is whether all these changes are changes for the better, for worse, or just change for the sake of fashion. This is where I should refer back to the original semantic meaning of the term "technology" as "the application of scientifically founded knowledge to practical purposes and problems". In this sense, any technology is a process of planned change or problem-solving, which results in new systems or products that better serve the needs and desires of the society, or of specific sectors of society like, for example, health, governance or education –let's call them "clients".

In this more general sense, one could argue that nothing has changed in principle – the role of an educational technology was always, and continues to be to apply the best available, scientifically founded, knowledge to the task of improving teaching and learning processes, tools and environments – and therefore by implication, results. But of course educational technology in this sense also changes with time, because the available scientific knowledge base changes – new theories are born, new research results become available, new paradigms are adopted, and also new fashions and beliefs come to the fore and influence the expectations and desires of the "clients".

5. **In your books, you advocate a systematic approach to the development of instruction. There are some researchers who advocate the use of iterative and incremental approaches to the development of instruction, which might be a paradigm that shaped in the agile design movement of software engineering. How valid are such approaches?**

Well, I do, in a general sense, advocate a systematic approach, but much more than this, I have advocated a "systemic" approach. These are not synonyms. Being systemic implies approaching a problem and analyzing or thinking about it in systems terms. It implies taking into consideration all the factors that may be contributing to a particular situation. A systemic view attempts to see how the decisions we may have to take are influenced by, and may also in turn influence, related "macro-level" decisions that are taken at a more general level, and also resultant "micro-level" decisions that have to be taken in order to implement whatever we decide.

In order to be systemic in one's thinking and decision making about a complex problem or situation, it helps to adopt a systematic process of Analysis, Design, Development, Implementation and Evaluation of alternative courses of action. This process, often abbreviated to the initials of its components – ADDIE – may be considered as systematic, but if appropriately used it is by no means linear, mechanistic or devoid of opportunities for creative insights and innovations. And it almost inevitably results in rethinking, redesigning and repeating the process in an iterative manner.

do about real-life problem solving – and often they are not even exposed to the ethical and moral issues embedded in their profession. Also, in practice, many are called upon to act as both scientists and technologists, but they are seldom prepared to distinguish and separate these roles and responsibilities. So, I feel that the different perceptions and emotions that you describe with regard to the term "technology" are not specific to China, but are something that one comes across everywhere in the world, largely due to the general lack of effort to clearly distinguish these professional roles.

The situation in the field of "Educational Technology" is no better in this respect than in any other scientific / technological field. Indeed, it is probably worse due to the fact that many people, including some educators, perceive (intellectually) and feel (emotionally) that education and technology are "incompatible bedfellows" whose "marriage" should never have been arranged. .But, even where the concept of educational technology is perceived and felt to be relevant and useful, confusion and misunderstandings often emerge.

For example, recently the University of Twente, in the Netherlands went through a major process of reorganization, one objective being to reduce the number of different schools and departments. Now, this university has for several decades been the home of Europe's largest, probably the best, and certainly the most internationally recognized department of Educational Technology – which incidentally has been a sister-institution of our own department of Instructional Design, Development and Evaluation (IDD&E) at Syracuse University. In the recent reorganization, for some inexplicable reason, the Educational Technology department has become a sub-unit of the school of Computer Science, rather than the school of Education. And this has happened despite the strong counter-arguments presented by the faculty, who can be considered as "Europe's best and most respected" in the educational technology field. The university's administrators "just did not understand" the arguments.

If we turn to the Unites States, arguably the "birthplace of educational technology", the situation is not that different. Similar strange and inexplicable mergers of departments have occurred in many institutions. And institutions that host educational technology programs differ widely in how they interpret their roles and areas of interest. One telling example was illustrated by a publication once produced by the Association for Educational Communications and Technology (AECT). This listed all the doctoral dissertations that had been defended in over a hundred educational technology departments or programs in US universities. We at Syracuse were surprised to discover that our program, and other similar programs with even greater numbers of students, like for example the programs at Florida State or Indiana Universities, were nowhere near the top in the ranking of sheer number of dissertations. The institution with by far the largest number of educational technology doctoral graduates was a university in Boston, which we at Syracuse had never considered to have an educational technology program at all. How can this be?

Analysis of the titles of the dissertations immediately explained everything. The institution in Boston was operating on the basis of "technology as product" – all studies were focused on topics like the use of TV studio equipment or specific multimedia software packages. In contrast, the Syracuse, Indiana and Florida State programs were based on "technology as process", reflected by dissertations that investigated the theories and the practice of "facilitation of learning" – which occasionally but not always involved the use of some technological products.

Even at National level, some confusion may be found. For decades, the US Government has nominated and funded a National Educational Technology Center, a contract that is periodically renewed through a competitive process. Over the years, the contracts have always been awarded to research units, like the Media Lab at the Massachusetts Institute of Technology (MIT), which, despite the implication of the institutional name, act much more in the roles of scientists who investigate what can be done with new media or ICT developments, rather than devoting their attention, systematically and systemically, to addressing key problems in America's schools and universities. The institutions which have competed by proposing a needs-based problem-solving approach have never been awarded the contract. It consistently goes to institutions that pursue a scientific R&D "solutions-seeking-possible-applications" strategy, rather than a technological "problems-seeking-solutions" approach. Yet if one reads the official government documentation that presents the reasons for awarding such a contract in the first place, one would be led to expect just the opposite.

Would you elaborate on that?

This phrase is placed in a section of the paper that presents a general discussion of the factors that have been known to lead to success or failure of education innovation projects in general. More specifically, it comes just after I had summarized a model for prediction and avoidance of potential failure, which I first published in 1981 as the final chapter of my book "Designing Instructional Systems". That book is firmly based on the principles of general systems theory and the practice of systems-thinking and the "systems approach". The paragraph in which this phrase is embedded follows on to point out that systemic thinking and the systems approach, although "necessary", are not always "sufficient".

The reasons for this are that analysis of any system is based on some assumptions, which include the assumption that the goals and expectations for the project, as presented by the "top clients" (the contracting institution) really are the true goals. And also, that these goals as later translated into specific objectives and actions by the client's management personnel (the educational technologist's counterpart staff from the client organization) are true to the original vision of the "top client", and not in part deviating from this either "accidentally" or even "intentionally". Let me give some practical examples taken from real-life e-learning projects that I have worked on during recent years.

The first example relates to the broader organizational, macro-economic, and political issues that may be very important, but are usually not stated and defined – indeed they may be deliberately hidden from the designer. I am thinking, for example, of the Ministry of Education of the national government of one of the ten largest and most populous countries in the world, which after having behaved for decades as if distance education did not exist, finally recognized its existence and "importance to the nation's education systems". This recognition was included in a new law that resulted in the formation within the ministry of a special secretariat to "promote, incentivate, facilitate and regulate" distance education.

Well, it turned out that over the following years this secretariat went about its job in a manner that, instead of facilitating the implementation and use of e-learning, made it ever more complicated and difficult. And it took most e-learning professionals another decade or so to realize that this was not due to basic incompetence and unpreparedness of the staff of the secretariat to deal with the educational and technical aspects of this innovation, but in fact was the result of a systematic pursuit of a "hidden agenda". The secretariat was responding to a lobby from the owners of major private universities and networks of secondary schools. The owners of these institutions were scared that the expansion of distance education would reduce enrolments in conventional courses and therefore hit the owners where it hurt most – in their pockets.

So, the real, but undeclared, role of the ministry's special secretariat for the promotion and facilitation of distance education, was just the opposite of its officially declared role. But it took a long time to realize that the efforts by enthusiastic educators and technical "gurus" to "orient and educate" the folks at the ministry were a complete waste of time and effort.

The second example comes from a project in an economically poor developing country – one of the poorest in the world, according to UN and World Bank statistics – which intended to take a "great leap forward" in the provision of secondary and tertiary education by means of e-learning. It so happened that when the project started, Internet access was restricted almost entirely to the national capital and even that was narrow-band, so one major part of this internationally funded project was investment in infrastructure – both technological and physical "bricks and mortar" learning spaces. However, the initial absence of this infrastructure did not impede the execution of curriculum redesign and instructional development activities in anticipation of that problem being solved.

By the years 2 and 3 of the (5-year) project, broadband Internet had reached all major towns and public access was already being provided both by private-sector "Internet Cafés" and by public-sector "telecenters" set up in all the regional offices of the national telecommunications company. However, the national distance learning project of the education ministry was intending to build and equip its own network of telecenters that were to offer a state-of-the-art e-learning infrastructure to be used by all the country's higher education (and also some secondary education) institutions. But, by year 3, none of these

One of the best sources to read more on this research is the chapter written by Joseph Kessels and Tjeerd Plomp (his dissertation supervisor) that is in my book "Instructional Development Paradigms" (Dills & Romiszowski – eds. 1997). Oh, and by the way, if anyone is interested in reading more about the "quirks of human nature", I recently discovered a Blog devoted to this topic on the Internet: http://www.psychologicalscience.org/onlyhuman/

9. **You mentioned that there has been much hype about e-learning in the last decade. It looks like that people are much more rational about e-learning now. The Sloan Consortium actually publishes a report saying that it is in the mainstream now. What direction do you think e-learning will go in the future?**

I guess that you refer to what I said in the 2004 article "How's the e-Learning Baby?" which was published in Educational Technology This somewhat informal review of the literature of the time revealed that many authors were then referring to the possible "hype" and asking if and when the "bubble would burst". My intention in that article was to compare and contrast what was happening at that time – at least in the USA (the review was limited to North America) – to what had previously happened when other new technological innovations had been introduced and disseminated in education. The point was to show that, unlike the "classical" model of successful diffusion of an innovation in society, which is characterized by the famous "S" curve of a slow start followed by rapidly accelerating acceptance until a saturation point is approached, most educational technology innovations have had a much more "bumpy" history of diffusion. Rapid enthusiastic acceptance is often followed by plunging disappointment, followed sometimes by total "death" and sometimes by a "rebirth" at a slower, more careful and more reality-based rate of adoption. This trajectory has on occasions been compared to the mythical Phoenix bird, that due to excessive self-confidence flew too high and too close to the Sun, so falling to earth engulfed in flames, but then being reborn from its own ashes as a more careful and much wiser bird.

So, yes, of course, e-learning is here to stay. The question is what impact it will have on educational quality and relevance. It worries me that education administrators still today are often quoting cost savings as the major reasons for getting involved in e-learning on an institutional scale. They quote the predominantly "no significant difference" research findings, arguing that if learning quality is not significantly different when students study at a distance, or face-to-face in class - that is, the two methodologies are equally effective - then there is much to be gained in terms of efficiency (or rather, cost-effectiveness) by adopting the less costly e-learning alternative. But these administrators overlook two "facts of life".

First of all, most of the "no significant difference" research that is reported in refereed journals is well planned and implemented, by researchers who rather hoped that they would show results that favor the new technologies. So, by and large, the e-learning courses developed or selected for use in comparative experiments were "good examples", and were probably also compared with good examples of classroom teaching. There is no guarantee, however, that large-scale expansion of the use of e-learning by all or most teachers in an institution, as part of a system-imposed reorganization, will maintain the same quality across all courses as was built into the earlier pilot or "proof-of-concept" courses. And there is a danger that any loss of quality may not be readily detected and corrected, as those teachers / instructional designers who do not fight for the best possible quality in their e-learning courses may well be working in institutional contexts where much of the conventional classroom-based instruction is also low quality. So the administrators still observe "no significant difference", as compared to previously existing mediocrity.

The second fact of life is that e-learning, when appropriately designed for a given content and context, may be even more costly than the conventional classroom-based alternative. We see a paradox here: educators who espouse constructivist educational philosophies embrace e-learning (though they never did embrace earlier forms of distance learning) exactly because of the opportunities the online environment gives for collaborative study and participation in a process of "construction of knowledge". But the methods that allow for such knowledge-construction are time consuming and small-group-based, and also often require a better-trained and more knowledgeable teacher – factors that may drive up the operating costs of e-learning beyond the costs of equivalent conventional courses.

on a mobile phone are vastly different from the tasks of creating an interactive game environment for a WEB 2.0 collaborative learning platform. Each new technological breakthrough spawns a whole family of devices and these have to be programmed and put to effective use by means of appropriate – typically also new – software tools. The media designer / web designer is faced with the task of learning to use each new generation of media-design tools in order to develop media for presentation via each new generation of devices. Often, as a project progresses, s/he will be inventing new and novel ways of using the tools.

In case this sounds like the media designer is the creative innovator that suggests how a new technological development could be used in a given lesson, and the instructional designer is there to "apply the brakes" and keep the whole process rolling along smoothly just as it did in the past, let me quote you a few lines from the introductory chapter of the new book "Educational Technology: a definition with commentary" that I have already mentioned earlier in this interview.

" ------ recently, the inquiry programs in educational technology have been influenced by growth and change in major theoretical positions in learning theory, information management, and other allied fields. For example, the theoretical lenses of cognitive and constructivist learning theories have changed the emphasis in the field from teaching to learning. Attention to learners' perspectives, preferences, and ownership of the learning process has grown. These theoretical shifts have changed the orientation of the field dramatically, from a field driven by the design of instruction to be "delivered" in a variety of formats, to a field which seeks to create learning environments in which learners can explore – often assisted by electronic support systems – in order to arrive at meaningful understanding."

So, instructional design is not a static field, but is constantly developing and evolving. However, this evolution occurs (or should occur) more in response to new or changed perspectives on the teaching learning process in general, rather than to the appearance of new technological tools. The tools should serve the pedagogical task, and not vice versa. Let's consider e-learning as a case in point. The use of e-learning may be first considered as a way of solving practical problems like increase of institutional market-share or resolution of student time-scheduling conflicts, but the design of how (and ultimately if) e-learning will be used should emerge as a result of considering a set of questions based on pedagogical factors.

To take your specific point about M-learning, the pedagogical aspects of a given project may be such that the restrictions typically imposed by the small screen size of currently available devices may argue against the use of M-learning technologies for that project. Of course, that is the ideal situation. But sometimes, decisions about what technologies and devices to use have already been taken for political, administrative or other higher-system-determined reasons. In such cases, one may have to do the best one can with the resources and infrastructure available – let's face it, we live in the real world.

11. **You have worked with numerous international organizations and national governments in the designing of instructional systems or programs, especially in the developing countries. China is a developing country and it has been reforming its educational systems, especially in the past decade. Are there any cases that have left a deep impression on you that you want to share with your Chinese readers?**

All the way through this interview I have been mentioning various cases as examples of specific aspects of instructional design or project management or whatever. These case examples were not from China, nor were they mentioned with China specifically in mind. But I believe that the points these case examples illustrated are as relevant in China as anywhere else. As regards cases that would illustrate aspects of particular relevance to the Chinese context, I am at a disadvantage through not having any direct first-hand experience of working on educational innovation projects for China. I think, however, that I can relate to specific issues that would be the result of the size of the country – both geographical extent and size of population. In this respect, Brazil, though much smaller, is of sufficient size to act as an analogy.

One recent project undertaken in Brazil, aimed at extending opportunities of post-secondary education to more distant rural and small-town areas, may be of some interest. This project claims to "place a university campus in every municipality of the country. It uses a combination of the regular television broadcast network and Internet. This allows high speed broadband distribution of high quality video materials as

So, the ICDE World Conference is one of the oldest-running, biggest and most traditional conferences in the distance education field, but it is not necessarily the best forum for better understanding the future for distance education – at any rate, not from a research-and-development perspective. It is a better barometer for tracking world trends in relation to dissemination, acceptance and growth of the field in general and of specific types of applications, solutions and technologies.

The table below presents a summary of what was discussed at the conference, by means of classifying the papers into a number of "topic-categories". The papers from Brazilian authors have been separated because they represent more than half of all the papers and, if by any chance the trends in Brazil are different from other places, including this large number from one nation would distort the general international picture. As it turns out, the general picture from Brazil is not all that different for most of the topic-categories.

Topic-categories of papers	World (minus Brazil)		Papers from Brazil	
	Number	Percent	Number	Percent
	Total: 130	100%	Total: 182	100%
Pedagogical and Technological issues	40	30,7	60	33,0
Philosophy; Policy; Strategies	32	24,6	69	37,9
Support services	7	5,4	12	6,6
Management; Logistics	6	4,6	12	6,6
Content and curriculum issues	3	2,3	10	5,5
Research and evaluation reports	21	16,2	15	8,2
Quality assurance, control , certification	21	16,2	4	2,2

I will comment some aspects of the data in this table, starting from the bottom - up. My first observation focuses on the relatively small percentage of all the papers that addressed issues of quality (16% internationally and only 2% from Brazil). This is interesting given that the officially disseminated theme of the conference was quality in distance education.

Secondly, the small proportion of papers that actually reported research findings (16% internationally and 8% of the papers from Brazil) supports my earlier comment that the ICDE conference is not the place to go if research issues are your major interest. It seems the delegates were more interested in discussing other aspects of the field. And these tended to be more the theoretical than the practical aspects. Well over half the papers at the conference discussed pedagogical, technological, philosophical, political and strategic aspects of distance education systems, while well under a quarter of the papers discussed such practical issues as planning the content and curriculum, the management of distance delivered courses, or providing logistical and student learning support services.

My personal impressions from the conference were that the field is in general in a very healthy state. There is much growth and diversification of applications of distance education in both large and small nations, in both the developing and industrialized world. In regional terms, there is much new activity in Africa and Asia, regions that were particularly well represented at the conference. There was a smaller than expected number of delegates and papers from Latin America (with the exception of Brazil, of course). Inquiries revealed that many representatives of projects and institutions in Latin America were not able to obtain financial support and so withdrew their proposals. This was also found to be the case in some other regions, notably Europe and North America, and also some specific countries – for example, we received a large number of proposals from India, where there is an exceptionally large amount of activity related to distance education, but less than one third of these proposals actually received the funding necessary to allow the authors to attend the conference. It seems easier to attend conferences like ICDE22 on international-donor than on national funding, so such conferences may not accurately reflect the worldwide state of the field.