

# Design for All



Better Learning By Design  
In Higher Education



*The*  
**UNIVERSITY**  
*of* **VERMONT**



## **Chairman's Desk:**



***Dr. Sunil Bhatia***

**Design is something of art or science or say amalgamation of both, it is difficult to confirm. There is a very thin line that separates. It is rather debatable issues since majority of the people in our time argue in favor of science and they discuss it with strong conviction 'Scientific rationalism is required for the progress of human civilization and the role of art is set aside but it is needed to enhance the aesthetic values of all our activities.' Those have some understanding of history of human struggle would confirm in defense of art by saying that 'Science tries to account for physical actions directly in physical terms. Human behavior is not a ragbag of modules, disconnected behavior patterns with separate human evolution .What involves here is emotional part that shapes our lives as a whole. Progress in human is altogether different from what scientist thinks in terms of physical terms. Scientific thought has a different purpose; as it hardly recognizes the concept of purpose of all. Details of endless acts which do not matter; what affects is**

**progress that helps the human civilization. In our opinion 'progress means if it changes the overall thoughts & actions without uprooting from earlier state. Continuity of civilization should be our objective'. Our civilization is very old .We can pick various examples in support of every theories purported by anyone but it will not serve the purpose.**

**'Is art reason of human progress or science is responsible for so called modern world?' Both sides have worked well and what we see our modern world is nothing but result of both. Modern designer's role is limited since he is to design the product and he would be paid for that. Designers as on today are not as sound as our ancestors had been. They had limited knowledge or data with which they were to think & act. They were to function through their observations and experiences. I believe our ancestors were keen observers and learnt a lot from their surroundings and used them for transferring their lives. They had no support of ideas & theories which confront present day designers. Our modern designers are restrained because they are occupied with so many details and their minds are tuned with multitasking. Reason is what level of concentration is demanded to accomplish the specific task for best output they never do because of diverted attention and that gives them moderate success.**

**I think science has limitation and at some level it leaves us alone and expect our efforts in further explorations. Art is unlimited, beyond the imagination and how it works is still mystery. Science is in my opinion is offshoot of art. A design of wheel was an activity of an art and it is nothing to do with the science. It might be possible**

our primitive people were unaware about science but their basic knowledge relating to mysticism was guiding them and it helped them to design such items which could improve life styles. How to move from one lower level to next higher level with the help of basic knowledge is an art and I believe after using their simple designed products like comb , mirror etc. Our ancestors appeared as they had mastery in this area. Modern person may say that many inventions were accidental. I say it was not accidental rather it was act of simple adept observation and what they have designed are still in use in our time because it is with same basic concepts and guided by serious thoughts. Modern people fail to take that basic design to next higher level inspite of that it was ahead start by our ancestors and failed in taking that advantages for further improvements. Modern people feel it suits their need in optimum and does not require our effort for further improvements. Our efforts in this direction will not improve rather it will ruin the basic concepts .In other words they lack proper knowledge for improvement. Wearing of sari by woman and Dhoti by man is an act of an art. An act of cutting, stitching and changed the clothes to wearable like pant or shirt, it is an act of science. Sari remains same in our times as it was in centuries old. Pant or coat or stitched clothes demand continuous efforts for improvements to be once sustainable in future. Once we cut a piece of clothe it is no more useful for further that stitched for a particular use. Stitching is an act of higher next level of learning, added the comfort and confidence but spoil the clothes for reusable .Muffler is an act of an art to cover from chilled wind or desert storm. Design of turban is an art but cap or helmet is not. Design of Comb is also art. Is design of mirror an art or science? Design of nail

is an art but design of screw is science. Basic science of nail is, it has head for striking hammer, sharper side goes inside as hammer strike on head, friction force of the material in which is nailing creates grip, that holds it tightly and never allows to come out. Screw is product of science since geometrical concept is introduced i.e by rolling the triangle like figure over the nail is result of screw. Screw is product of higher learning relating to science.

Art lives longer because design under its influence expresses our emotional, unique bonding and it is difficult to locate substitutes better than products designed with this concept. Art does not need continuous effort for improvement to sustain but science cannot survive longer in its own way. What today seems relevant may prove wrong in coming days and to survive it demands continuous efforts of improvements. Designed of the products/ services by the concept of science needs constant improvement and has limited life. Products designed under the influence of art expresses gratitude, enjoy respects of others and it confines sign of humilities. Product designed with central idea of science reflects energy, activeness and person with commercial mind. When a person of any age wearing sari or dhoti, a sense of respect is generated and I have noticed on many occasions while travelling in local train that when a person wearing dhoti or sari is standing closer to me I invariably offer my seat to them. Other side a person with pant & coat gives me feeling of horse like person. Always active or smart and doesn't require my seat for rest.

Art and arts have different meaning. But we use it as something interchangeable while teaching. Art is visual and an arts is visual,

performing and allied. Art is expression of aesthetics ideas or purpose by the use of skill and imagination in the creation of objects, environments or experiences that can be shared with others. Art has various purposes. It informs, teaches, a vehicle for social messages and changes. Other side design with science has a unique goal and it generally caters without emotion but occasionally has inbuilt social message. Both are working to satisfy the need of an individual but science works on 'present' and art foretells 'future'. Our higher learning methodologies train the mindset of industrial designer more tuned with scientific knowledge where tinge of art is mixed. On other side a jeweler designer uses more of art and less of science because he designs in accordance with emotion of the person not for object with specific goal. Scientific progress with 'why' and how look for logical development. Art simply works and what is the guiding force is still mystery. Many great artists failed to explain the reason of their creation. They fumble and give credit to divine power or say destiny. They simply say it has just happened.

Various designs of Knots are an act of art. Twisting the threads to make it stronger rope is an act of art. In medicine, the stitches that permit a surgeon to correct an aneurysm or carry out a heart transplant were invented by American Nobel laureate Alexis Carrel, who took his knowledge of lace making into the operating room. That pace maker we use: it's a simple modification of a musical metronome. If anyone has a neurological deficit, our neurologist employs dance notation to analyze his problem. The stent that was implanted in our aorta to keep it open, which was designed using the principles of origami. We probably didn't know that Samuel Morse

(telegraph) and Robert Fulton (steam ship) were among the most prominent American artists before they moved to inventing.

A visitor with unassuming personality came to me holding a wooden rectangular box of size 9"\*3"\*1" He placed that on my table and I looked that box , found it has six holes with attached V shape cut in front face of the box . Before I could make any sense he had asked politely "Sir! Guess! What for I have designed this item?" I tried my level best to guess with on my so called scientific knowledge. It was a wooden box that can be fixed anywhere in the wall and has five or six holes attach with cut in V shape .My thought processes are almost moves along with logical pattern but failed to figure out what was the commercial use of the item. After making all efforts to find what it was, I realized it was difficult to analyze with my modern knowledge. Other side I was under the grip of shame that my all knowledge proves useless and that feeling was overshadowing as I am losing this Challenge. My mind was not ready to accept the defeat but heart was acknowledging it. Heart was saying 'This defeat will open a new avenue for new learning. To learn new things we should smash their preconceived model because it would never allow entertaining new ideas and judging every action by preconceived parameters may be wrong or correct'. I did not know what force has made to say 'I give up!'. He said 'it is for hanging napkins, handkerchief etc. in each hole. You place the edge of napkins into hole and drag that corner of napkin till it fixes in V shape cut and it will never allow falling. I was amazed by such a simple design. 'How has he designed such a simple solution for stacking napkins?' That man was illiterate and belonged to remotest area where influence of modern technology was not as harsh as we

noticed in urban areas. This simple design was the product of 'human culture'. Wherever the developed culture is prevailing, people make the simple problem complex and then try to simplify just to prove them intelligent. Such actions are worthless exercises but in modern time we hail them 'acts of higher learning or men with high intellect.' Real learning lies in fact as to how use the basic concept for designing the solution as simple as possible for complex problems for progress of the society. Dropping a high vocabulary or so called established names of designers or man with many degrees or man with commercially successful does not make him/her designer. He/she may individually grow compare to what a common person cannot. His/her growth enhances his/her personal status but civilization continues to maintain the status quo or starts decaying. Real designers are those who move the culture forward and work for progress of civilization. Design of Electric bulb is the simplest design in modern time and it has helped in progress of civilization. Our modern designer can never think that how beautifully our ancient persons designed the art of weaving and later on that turned out to be a pattern design. The same concept has revolutionized the modern world by the introduction of modern computer and digital world. All credits goes to what we are today to our ancestors. I am sure if I offer the same problem to my students & friends and allow them to design. I do not think they will ever reach to such simple solution because they are guided by their wrong education. Everyone will imagine the problem with complex structure and will use the latest technology and material for designing without considering its cost effectiveness and versatile solution. Why do they fail? Reason is our faulty educational system. We tune our minds

with technologies and scientific laws and thus fail to think beyond this training. 'Life cannot be bound in simple laws. Life invents its own rule and follows its own path that is beyond the human imagination.'

The other day while coming out of the institute, I was thinking about my foolishness, my false ego was crumbling. As usual I was thinking about how to improve such a simple design. It was an attempt to prove superiority or act to overcome that defeat. I realized I cannot improve this design but can suggest in place of wood, plastic material will suit for mass production and cost effectiveness. 'Is cost-effectiveness real job of designer?' I was unable to match the simplest man with what a great cultural knowledge and I was nowhere near to that man's prowess of simplicity. That simplicity was defeating me. I never thought that art is beyond the reach of scientific temperament. 'Life is not progressing alone with scientific techniques, some time to push forward we seek the help of an art'. In other word art is the real dynamo of progress of the society and in due course of time it takes the shape of culture. The art that looked so strange was actually telling the truth. It's hard to believe that a work of abstract art might have actually affected the history of science. When we think about the scientific process, a specific vocabulary comes to mind: objectivity, experiments, and facts. In the passive tense of the scientific paper, we imagine a perfect reflection of the real world. Art appears to be all simple but its meaning is far-reaching & profound. The central premise of one culture is that science and the arts are not separate entities, but parts of the same whole of human culture. Most of the people including me are at a loss to be able to identify any useful

**connections between arts and sciences. This ignorance is appalling. Arts provide innovations through analogies, models, skills, structures, techniques, methods, and knowledge. Arts don't just prettify science or make technology more aesthetic; they often make both possible. Art is reason applied without limits geared towards an ideal and guided by the practical. Our primitive people were not formally trained but learnt the art by imitating the act of others or environment around them and tried to progress the society by using those basic observation for designing the products for making their lives comfortable to a degree.**

**Cooking is an art and it is from the day when man was born and he required food to survive. Men hunted for food, later on cooked for safe consumption and store for future. Gradually they designed the cooking by boiling, frying and baking. When I look at the history of human civilization I admire the way they have used the concept of art. Everything they did was an example of marvelous art. Cooking appears to be simplest act but it has its own history of struggle and narrates a long story of human civilization. 'Why have they introduced the concept of cutting the vegetables into pieces? First reason might be, while cutting, it increases the surface area and cooking is even that saves the energy and time. Another reason might be it helped in easy to bite and chew because of opening possibility of human mouth is limited. How come they know that certain items needed baking, boiling and frying? They had sensed that certain items could be cooked for eating because it need direct temperature of fire of 700 to 1900 Celsius and answer was fire kiln, some could cooked within 100 Celsius and water was ideal because it boils before 100 degree and some needed uniform heating of 400**

to 900 Celsius and continuously needed change of surface for even cooking, so different oils were heated for cooking. This is the reason cooking as an art not science.

I have noticed in few occasions, designers have taken the basic concept of design to next higher level by simply applying other basic concepts. I salute those designers who helped in real progress of the society by sacrificing their own benefits. They remained poor by choice inspite of they were talented enough to earn for better lives .One is our nail and other is weaving, that proved the reason of design of screw and computer & digital worlds. Design of nail is an art but design of screw is science. Concept of digital world started with the concept of weaving. Weaving is an example of an art but design of computer and allied digital world is science. A washing machine is designed to clean the clothes and replacement of manual cleaning. Urban culture allows them to clean the clothes but rural people have invented their own way and felt it could be used for washing potatoes, vegetables and spinning dryer for skimming milk because these tasks were more tedious than washing clothes. By simply introducing the broader pipe for exit of waste it could be accommodated both. 'Why did not manufacturer introduce the broader pipe?' The Electric Rice Cooker designed by Toshiba in 1955 is another good example of an adapted product. Its shape was designed to be similar to a conventional Asian cooking pot, yet its simple and modern form with a white body and metallic top cover bore the streamline trademark of modern industrial design. But what made the rice cooker revolutionary was not its form but its application of technology. Before its design, Japanese housewives used charcoal and it was a messy not to mention time consuming

affair to cook their daily staple of rice. As women started moving into the workforce, time became important and the electric rice cooker was developed to save time without compromising on tradition. Pressure cooker is best example where rural as well as urban women are equally benefited. In electric rice cooker there must be electricity to operate but in pressure cooker design by French physicist Denis Papin by using the basic concept of cooking since the discovery of fire for using as cooking medium . Fire can be made of wood, cow dung, gas or electricity as per the availability. Pressure cooking is a method of cooking in a sealed vessel that does not permit air or liquids to escape below a preset pressure. Because the boiling point of water increases as the pressure increases, the pressure built up inside the cooker allows the liquid in the pot to rise to a higher temperature before boiling. These are few examples where modern science has helped us to save energy, time and allow us to utilize save time from these tedious works for better use without compromising the real art of functioning.

Science, on the other hand, is geared towards the exploration of the practical. In both experimental and theoretical sciences, our aim is to discover a practical aspect of the universe; our data, experiments and ideas are all oriented as such, defined by the framework set by nature's laws. However, ultimately, the experiment or theory attempts to attain an ideal in accuracy, either in experimental data or law formulation, a goal of almost every practitioner of science. Science is therefore guided by this mindset of idealism, despite its practical nature. The development of the steam engine by James Watt in 1765 led to the mechanization of industry, agriculture and transportation and changed the life of the working man of the world.

**The cities and towns grew to accommodate the expanding industries and the influx of workers from the countryside looking for employment. However, living standards gradually deteriorated and industrialization left people with a sense that their lives had changed for the worst. Many had sacrificed a rural lifestyle and strong influence of centuries old culture for the sake of a job in the 'dark urban mills' of the Industrial Revolution. As a result, they lost that feeling of security and belonging which used to flow from living in smaller communities. Science has overshadowed the traditional craftsman and artisans those were engage with watch industry. Modern designer finds that there were many limitations in terms of materials that were possible in the mass market. They could not make a mass production items with in affordable prices. If they could even think to use ceramic it could not make durable out of ceramic. It meant design had to know what metal or nonmetal was needed to design the products. In modern watch company, they find working with leather or metal is getting difficult because no more traditional craftsman and artisans sons and daughters are interested to come forward to work for progress of the art. They know with the advent of better technology their survival is impossible. It is time to create a better opportunity to bring back into high industry. I am citing the example where modern designer Christopher Dresser (1834-1904) whose work still looks remarkably modern, started to reject the limitations of the Arts and Crafts ideals and positively embrace the techniques of industrial manufacturing. The royal College of Art, London is another example where everything comes under the influence of art.**

**It is time for the professional community of design to promote the demonstrable value of design. Our education at the basic level is not infusing the thought process of progress of civilization rather more focus on individual development in terms of commercial world. What our ancestors have done in building of nation, their sincerity was beyond doubt and to achieve this goal they had sacrificed a lot at the individual or family level that values should be taught at basic level. Such concepts are altogether are missing amongst our young designers. They join this course not to make this world better and progressive by design rather they come with focus 'How to design the best car or motorcycle' when faculty members discourages or ask them to tackle this activities later on they become disinterested in design . They do not heed to advice of faculty and start working under this passion to design the car. When they find their efforts are not stirring the commercial world, they switch to other areas of no interest for earning their bread and butter. This makes them a frustrated lot. There is need for this change and this can be bringing through proper education at basic level as well at higher level. We should train them for using both sides of brain equally, so this profession is a fit for those who are using science along with art. It's not just about art. We have to figure out the best materials to use and how to manufacture a product as we design. What it means to be an artist and what it means to be a designer. It is clear that the world that we 'see' around us is not the real world but our mind's representation of our senses. The sky is not blue; this is something that our minds have so created. Thus the problem for designer has been to try and use reason to work out what the real world must be that causes our senses to be at ease or these get disturbed. This**

**opens up interesting possibilities for Art, for as our mind represents reality; likewise our Art is also created by representation. Thus Art has the potential to correct the errors of our mind's representation of reality, by a further representation of Art that overcomes these naive real illusions to 'see' things as they truly are.**

**I am a designer. I am not opposed to design. It is my religion. When one designs for mass production, one "makes" one way. When one designs for one at a time production, one "makes" another. A potter doing a series of similar pitchers would make each one differently responding to material and psychology. Your items were all identical. You can approach this in a more liberated and challenging frame of mind, which perhaps would be more engaging both for you and the viewer. Our young designers are trying to establish themselves by using extensive knowledge of science and as technologies become obsolete so their design. What we call 'Good design' will utilize the latest design freedoms in innovative ways that are uniquely suited to each. Our young designers are trying to establish themselves by using extensive knowledge of science and technologies as these become obsolete, so their design. What we call 'Good design' will utilize the latest design freedoms in innovative ways that are uniquely suited to each application. This can give a product a significant, social value and it be different from the life of design products are same as life of technology used for development of products. In modern times almost everything that is designed is influenced by the latest developments in technology and social values are nowhere visible. 'Emotion should be central idea of design for product'. No designer has ever used the concept of art in designing and art means to them it should help in increasing**

aesthetic value. Why do they fail to use the concept of art in designing? It may be because of our wrong education system or it is the inner wish of every designer to establish as commercial viable designer so that he/she can gain by partnering with the profit. Money proves driving force for designing. Social designing with the concept with an art is beyond their imaginations. Why do they fail to use the concept of art in designing? 'Use of technology in designing different application is helping in changing human behavior but not culture and thought process.' Better learning by design in higher education is one way to rectify the mistake we committed in last few decades.

I am thankful to team of Universal Design learning of The University of Vermont for accepting our invitation for special issue and Dr. Lawrence G. Shelton, Ph.D and Ms. Susan W. Edelman, Ed.D for Guest Editor. They have recently concluded international conference on Universal Design and this special issue is outcome of that conference.

*Great things are not done by impulse, but by a series of small things brought together. (Vincent Van Gogh)*

*Wishing Merry Christmas and Happy New Year 2012*

With regards

Dr. Sunil Bhatia

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## Content of December 2011 Vol-6, No-12

<b>1. Chairman's Desk:.....</b>	<b>2</b>
<b>2. Better Learning by Design in Higher Education:.....</b>	<b>20</b>
<b>3. Design for All in Higher Education:.....</b>	<b>27</b>
<b>4. Accessibility Across the University:.....</b>	<b>32</b>
<b>5. UDL in Postsecondary Practice.....</b>	<b>49</b>
<b>6. Faculty Attitudes About Disabilities and Universal Design:.....</b>	<b>64</b>
<b>7. Collaborative Consultation with Faculty to Promote Universal Design for Learning [UDL]: .....</b>	<b>77</b>
<b>8. Applying Universal Design for Learning to Academic Support Programs: Academic Engagement Outside of the Classroom:.....</b>	<b>87</b>
<b>9. Applying UDL Principles to Design More Inclusive University Teaching.....</b>	<b>103</b>
<b>10. Design Strategies for Inclusive Foreign Language Classrooms:.....</b>	<b>118</b>

### **Other regular features**

## **Forthcoming issues:**

### **January 2012 Vol-7 No-1**

**It is special issue for celebration of INDO-GERMAN friendship year 2012. The Guest Editor will be Prof Dr. Peter Neumann. Dr. Peter Neumann has been working in the field of accessibility and Design for All/Universal Design for nearly 20 years now.**

**He is also President of the European Network Design for All Germany (EDAD), the national member organisation of EIDD – Design for All Europe.**



### **February 2012 Vol-7, No-2**

**Dr Hua Dong will be the Guest Editor and it is special issue focusing role of China's Designers.**



## **March 2012 Vol-7, No-3**

**Adjunct Prof Ravi Hazra of IDC, Indian Institute of Technology – Mumbai, India will be the Guest Editor and he will invite the author of his choice for contribution of articles for this special issue.**



## **April 2012 Vol-7 No-4**



**Dr. Sherril York is the Executive Director of the National Center on Accessibility (NCA), a center within the Recreation, Park and Tourism Studies department located at Indiana University in Bloomington, IN. Dr. York brings over thirty years of experience in higher education in personnel preparation, direct service programming, and research with people with disabilities from toddlers in early intervention programs, children/adults in physical activity development, to elite athletes in adapted sport programs. She will be the Guest Editor for our special issue of April 2012**



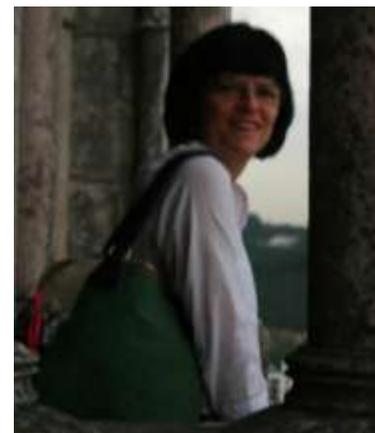
## **May 2012 Vol-7, No-5**

**A special issue on archive articles of EIDD and Guest Editor will be Mr. Pete Kercher  
Ambassador/External relations: Pete Kercher, E-mail: pkercher(at)libero.it**



## **June 2012 Vol-7, No-6**

**Prof Marcus Ormerod is co-director for the SURFACE Inclusive Design Research Centre with Rita Newton and they will be guest editors for a special edition of getting outdoors.**



## **Guest Editors:**



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# **Better Learning by Design in Higher Education**

## **Introduction**

***Lawrence G. Shelton & Susan W. Edelman***

***University of Vermont [UVM]***

**Design for All Newsletter has become a very important source of information and ideas on accessibility from around the world. We are therefore pleased and honored by Dr. Bhatia's invitation to publish papers from and related to the Better Learning by Design conferences and our project at the University of Vermont. This issue includes papers based on presentations and current projects that have not been published yet in other sources. We deeply appreciate the efforts of the authors to contribute their work here.**

**The Better Learning by Design Conferences are sponsored by the UDL@UVM project, which stands for "Universal Design for Learning at the University of Vermont." The project has been funded by a grant from the U.S. Department of Education Office of Post Secondary Education as a model program for improving the success of students with disabilities. There are programs of different types in several American universities with funding from the same office. Our work grew out of a small effort to help faculty learn about using technology to make accommodations for the increasing numbers of students with disabilities enrolling at UVM and other universities.**

**In the United States, public policy has required access to education for students with disabilities since the early 1970's. As the work to implement that policy has succeeded in elementary and secondary education, more and more students with disabilities have aspired to university education. Unlike K-12 education, the higher education realm has not experienced the broad efforts to assure that faculty is prepared to accommodate and teach students with disabilities. Thus students with disabilities have encountered traditional classrooms and teaching that are not designed with their needs in mind. Faculty typically has made special accommodations for students with disabilities when required, but have not made broad changes to teaching. We joined the growing efforts to change practices at our university by creating a collaborative consultation model to help faculty incorporate universal design for learning practices in their courses.**

**Universal Design, or Design for All is complicated in the education setting because the majority of students with disabilities have "invisible" disabilities. Many of these disabilities, such as traumatic brain injury, learning disabilities, and psychiatric conditions affect learning directly, requiring design that allows for many types of learners to access the classroom and what goes on in it. When students do not learn in the typical ways, teachers may question whether they should be admitted to academic programs at all. Research and experience demonstrate, however, that when teaching is designed with attention to the individual characteristics and needs of the learner, many students with disabilities are quite capable of mastering advanced academic material and proceeding to successful degree completion and careers. This may be easier to understand if**

**one realizes that students with disabilities often have learned to cope well with teaching that is not designed for them, and have succeeded precisely because they possess normal intelligence and admirable flexibility and ingenuity.**

**As we have pursued our project at the University of Vermont, our simple faculty consultation program has been joined by many other activities we have been asked to participate in as we have discovered connections to a wide variety of activities and needs on campus. A few of these are reflected in the articles in this issue. Our university, like many others, faces many challenges that require our adaptation. The principles of universal design have proven to be useful in several facets of university activities, and have potential to contribute to student recruitment and retention, increasing student success, and meeting current demands for demonstrable outcomes for college education. When principles of universal design for learning are incorporated in classes, learning is improved not just for students with disabilities, but for all students. When the campus becomes more accessible and welcoming for students with disabilities, it also becomes a better place to work, to be a student, and to visit, for everyone. Universal Design for Learning encourages addressing all the diversity our campuses reflect, including diversity in mobility, perception, age, ethnic background, religion, gender, socio-economic status, and others.**

**We hope readers find the presentations here informative and useful. All of the authors invite communication from readers to ask questions, share information, or suggest additional approaches. The work of many other researchers and leaders is referred to in these**

pages. We thank them for their work that has led the way for us, and we urge readers to consult their work and communicate with them as well.

Our project is a collaborative effort of many people, some of whom have contributed to this issue. We are deeply grateful to our friends and colleagues at CAST, developers of the UDL framework that informs all of our activities. Other cherished colleagues include Cristal LeGault, Puja Gupta, Wendy Verrei-Berenback, Zack Ahrens, Nicholas Ogrizovich, Patricia Mueller, and David Merves.

Again, let us repeat our appreciation to Dr. Sunil Bhatia and Design for All Institute for the opportunity to share our work with all readers.



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## **Foreword**

### **Design for All in Higher Education**

*Daniel Mark Fogel*

*Professor of English and Immediate Past President,  
The University of Vermont*

**My colleagues at the University of Vermont (UVM), Susan Edelman and Lawrence Shelton, have hosted two conferences since 2010 on UDL, or Universal Design for Learning, and papers from the second of those meetings, held here at the Dudley H. Davis Student Center on June 1 and 2, 2011, are brought together in this issue of *Design for All*. When I was President of UVM, I applauded and supported the work of Professors Edelman and Shelton and their colleagues across the University in promoting awareness of UDL and its adoption in classrooms across our campus. As a public, land-grant University devoted to access, diversity, and inclusion, UVM puts a premium on making sure that all learners have access to the pedagogy of our gifted faculty. UDL has taught us that pedagogy of access must be sensitive and responsive to the many ways in which students are differently abled for the reception and processing of information, and for its conversion into knowledge and abilities that stick.**

**We created at UVM, in 2004, a President's Commission on Diversity and Inclusion, a body of faculty, staff, and students with a very broad portfolio, which included making recommendations on how best to meet the needs of members of the community who are differently abled. One of its recommendations was for the creation of**

**a standing Campus Accessibility Task Force. That Task Force—with the support of all five Presidential Commissions that are concerned with the University’s commitment to diversity, inclusion, and social justice—has in turn recommended an institutional commitment to UDL. Professors Edelman and Shelton have been the co-principal investigators on a million-dollar U.S. Department of Education UDL grant through UVM’s College of Education and Social Services and its Center on Disability and Community Inclusion. It is my conviction that we have built an institutional culture that will sustain UVM’s commitment to UDL long beyond the life of the grant, and that our doing so is very important.**

**My support for UDL has been very personal and, at the same time, institutional and strategic. As a child in school I wandered in what seemed at times to be an unforgiving and unending desert wasteland of obvious learning disabilities. I reversed letters and words. I muddled numbers. The figures 3 and 8 often seemed to me indistinguishable, and so were 4s and 9s, making simple arithmetic an agony. Through the gentle but sustained and intensive efforts of my parents, a gifted guidance counselor, and private tutors, I overcame those trials, enough to become a skilled copy-editor of a learned journal I edited for sixteen years, and an administrator who was all over numbers and budgets. But fighting my way out of that wilderness of dyslexia was a long, hard path, extending from elementary through middle school. My sense of difference, of being handicapped compared to other children, and of needing to be cut out from the group for special attention all weighed heavily upon me.**

**I know that the path would have been shorter and less arduous—and that the painful sense of debilitating difference would have largely dissipated—had I grown up in a learning environment informed by UDL. The adults who guided me through my learning challenges were sensitive, kind, patient, and very able. I will always be grateful to them. But in the 1950s and 1960s the development of UDL lay far in the future. Personally, then, I have greeted all I have learned of UDL as opening up a pedagogical promised land where bafflement and frustration give place to the joy of learning through ways of teaching that benefit not just those who are differently abled but every member of the community, students, faculty, and staff.**

**Beyond the personal, the institutional and societal value of UDL is writ very large in the research that documents improved learning outcomes for all students taught in classrooms in which UDL is put into practice. Like virtually every public university in the United States, the University of Vermont has been bent on improving its retention and graduation rates, elevating student success and satisfaction to a strategic priority. The six-year graduation rate at UVM has been far above the average for American public doctoral universities. Recently, for instance, 80 percent of our students who are Vermont residents, and well over 70 percent of our students from other states and countries, have completed bachelor's degrees within six years, compared to 57% nationally at public doctoral universities (a truly disheartening benchmark). But UVM's graduation rate is nowhere nearly where we want it to be. As I remarked recently to a colleague in the UVM English Department in which I have happily assumed a faculty appointment, what does it**

say about us that twenty to twenty-five percent of our students do not cross the finish line with earned degrees? How much does that dismal reality undermine our case for continuing and enhanced investments by taxpayers in public higher education? We need to do better, not just in building public colleges and universities that are accessible, diverse, and inclusive, but also in educating students to be citizens who have confidence that they are well prepared and competent to address the many challenges that face their communities, their nation, and our world. Because UDL has been shown to produce confidence and competence in the general student population—extending its benefits beyond the differently abled students for whom it was designed—it abundantly deserves the priority we have given it at the University of Vermont, and it commends itself to the attention of readers of this Special Issue of *Design for All*.



***Daniel Mark Fogel***

***Burlington, Vermont, USA, November 12, 2011***

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# **Accessibility Across the University**

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**Imagining a college campus *accessible to all* isn't terribly hard to do. Picture people is moving easily about in spaces that are open and flexible and others using technology for all sorts of functions to ease learning and promote involvement in campus life. Barriers to involvement, acceptance, and achievement don't exist, and the campus would be a respectful, welcoming community supportive of all its members. Success, satisfaction, and achievement would be the norm. However, to envision a northern New England university founded more than 200 years ago, with over 12,000 students and 1300 faculty on a path toward campus-wide accessibility is a daunting proposition! This article will report on the first steps of an initiative underway at just such a university. Tips are offered for those on campuses who are on a similar journey toward accessibility for all.**

## **Campus Accessibility Task Force Created**

**In February 2010, the University of Vermont's (UVM's) Commission on Diversity and Inclusion made an important recommendation to then President Dan Fogel for the "adoption of Universal Design principles to advance the University beyond simple compliance with law and policy by designing instructional, physical, and technological environments that are routinely usable by all without the need for additional adaptation." During the Fall semester of 2010, the**

**Campus Accessibility Task Force (CATF), chaired by the university's Associate Vice President and Dean of Students, was appointed and charged with reviewing and assessing the physical and learning environments and policies, practices, and procedures that may unintentionally be limiting factors of accessibility. Representative membership of the CATF by invitation of the President was campus-wide including Directors of Academic Support Programs, Diversity and Equity Unit, Center for Teaching and Learning, Residential Life, Center on Disability and Community Inclusion, Human Resource Services and Capital Planning and Management. Membership also included the Chief Information Officer, General Counsel and the Co-Principle Investigator (current author) of the Universal Design for Learning project on campus known as UDL@UVM.**

**In the charge to the task force, the President identified the role of CATF "to serve as an advisory body making recommendations on ways to improve and advance campus accessibility. The task force will assess physical and learning environments as well as review policies, practices, and procedures that may have the unintended consequence of limiting access. Basing its conclusions on that review and assessment, the Commission will recommend appropriate measures to enhance accessibility".**

**This work takes on added importance since the United States government is holding U.S. institutions of higher education accountable for making technology and all instructional materials accessible to all students. On June 29, 2010, the Office of Civil Rights, United States Department of Education, sent a joint letter to**

all United States College and university presidents. In this letter, OCR attorneys affirmed that—

*"Requiring use of an emerging technology in a classroom environment when the technology is inaccessible to an entire population of individuals with disabilities—individuals with visual disabilities—is discrimination prohibited by the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973 (Section 504) unless those individuals are provided accommodations or modifications that permit them to receive all the educational benefits provided by the technology in an equally effective and equally integrated manner" (Office of Civil Rights, US Department of Education,(2010) Joint Letter, Washington, DC).*

This OCR mandate requires post-secondary institutions to provide equitable access to all learning materials and activities, digital or otherwise. This extends to textbooks, courseware, learning management systems, and instructional software programs—in short, any and all curriculum resources required for use in academic programs.

In a report published this month, the current status and potential future of accessible instructional materials is explored in detail:

*The provision of Accessible Instructional Materials (AIM) to students with disabilities at the postsecondary level has been impacted by issues associated with the complex interactions between civil rights and copyright law, as well as an evolving market and rapidly emerging*

***technology. To address the multi-faceted challenges associated with these issues, the Advisory Commission on Accessible Instructional Materials in Postsecondary Education for Students with Disabilities (the Commission) was established under the Higher Education Opportunity Act of 2008 (HEOA).<sup>i</sup> The HEOA directed the Commission to—***

***conduct a comprehensive study, to—(i) assess the barriers and systemic issues that may affect, and technical solutions available that may improve, the timely delivery and quality of accessible instructional materials for postsecondary students with print disabilities, as well as the effective use of such materials by faculty and staff; and (ii) make recommendations related to the development of a comprehensive approach to improve the opportunities for postsecondary students with print disabilities to access instructional materials in specialized formats in a timeframe comparable to the availability of instructional materials for postsecondary nondisabled students.<sup>ii</sup> (AIM Commission Report, p.14).***

**Accessibility in instructional materials and physical environments are central to the accessibility challenge. Progress in these areas is attainable and clearly desirable in a community that values respect, acceptance and diversity of all persons. However, UVM is not immune to serious *attitudinal barriers* of our society that stigmatize and, in many cases, limit the opportunities and contributions of persons with disabilities within our community. Positive attitudinal**

change toward persons with disabilities happens when people experience and have a chance to witness and appreciate the contributions and achievements, the full potential of persons with disabilities. Ignorance, fear, and misunderstanding about people with disabilities are dispelled as colleagues, co-workers, and classmates with disabilities share fully by having access to all of the experiences of the campus community. It is in the context of this foundational and critically important need for removal of attitudinal barriers that the CATF set about its work to cast a vision for increasing campus accessibility and success for all through adoption of the principles of Universal Design for Learning (UDL).

## **Universal Design and Universal Design for Learning**

### **Universal Design**

Universal Design (UD) comes from architectural design principles developed and refined by Ronald Mace, an architect, planner and a person using a wheelchair who coined the term in 1982 to describe his approach. Mace acted upon what he had experienced personally. It was much easier (and less expensive) to design and build accessible environments from the blueprints up, rather than retrofit inaccessible environments once constructed. What Mace also believed was that these specially designed environments would be more useful for everyone, even those without physical and sensory challenges. Curb cuts, levered faucet handles, wider doorways, integrated wheelchair ramps, elevators, and multiple entry classrooms have made access easier for all of us including those with more specific needs. Mace's work at the Center for Universal Design at North Carolina State University was framed by seven

principles useful to us today as we consider access to educational environments and accessibility of educational communities. These principles are: 1) equitable use; 2) flexibility in use; 3) simple and intuitive use; 4) perceptible information; 5) tolerance for error; 6) low physical effort; and 7) size and space for approach and use.

## **Universal Design for Instruction**

During the 1990s, work at the University of Connecticut determined that the seven principles had to be modified for the UD principles to apply to school settings. Bricks and mortar were one thing; interactive human environments were quite another. Researchers at the University decided to augment the original seven by adding two additional principles: 8) a community of learners; and 9) instructional climate. These two additions with their consequent descriptive standards meant that faculties as well as facilities could now be held accountable for the design of additional learning opportunities into teaching and learning environments. Even higher education faculties could now access Universal Design for Instruction (UDI).

## **Universal Design for Learning (UDL)**

Researchers at the Center for Applied Special Technologies (CAST) in Massachusetts recognized that access to the classroom does not guarantee access to the curriculum or success in learning. They proposed a different set of standards to address *accessibility of learning* in the classroom and focused on the disabling effects of narrowly conceived and framed curricula. Basing their work on a foundation of contemporary research in cognitive neuroscience of learning, the CAST scholars identified three principles directly

related to three brain systems central to learning. Not surprisingly, the three principles directly address how university teaching faculty should think about their teaching methods. The first principle, providing multiple forms of *representation*, refers to the ways faculty show the content by using several different mediums (e.g. text, pictures, visual diagram, video segment) so that a wider range of students will find the content “accessible.” The second principle, encouraging multiple forms of *expression*, refers to providing options for students to show what they know so that a wider range of students will be able to actively demonstrate what they know about what is being taught. Their learning will be more accessible to their teacher. The third principle, multiple forms of *engagement*, refers to the options available to students to actively process what they are learning. This can occur through conversation with other students, manipulating other forms of the content, and writing and monitoring their own goals for what it is they have to learn.

Universal Design for Learning (UDL), then, is a way of approaching the design of teaching strategies, materials, and environments at the beginning of an instructional planning process that takes into consideration how to address the learning needs of a wide continuum of learners. As such, planners think about instructional goals, methods, materials, and assessments in such a way as to maximize learning opportunities. In the UDL world, it is a *curriculum that is disabled* causing student failure. UDL focuses the design efforts on the learning environment so as to provoke the expression of desired outcomes. UDL is fundamentally grounded as an *equity strategy*. As such, UDL expands the learning opportunities

of a wide diversity of learners, including students, faculty, and staff. It is able to do this because of its genesis in Universal Design.

## **UVM CATF Begins Journey Toward a Shared Goal: UD and UDL**

Building upon an understanding of the legal mandates of ADA and the Higher Ed Act of 2010, and using UD and UDL as a framework, CATF members began initial assessment of the current status of UVM's technological, physical and teaching/learning accessibility and drafted preliminary steps toward improved accessibility and implementation of UD and UDL. Important to note is that no financial resources were available to the CATF for comprehensive assessment of need. CATF members used existing data and information to describe assets and challenges to accessibility. A summary of these findings follows.

### **Physical Environments**

For a 460-acre campus with 183 buildings, 22% built around or before 1900, assessment and documentation of accessibility issues is an enormous challenge. Not only is building access sometimes challenging, spaces inside of buildings and between buildings are also of concern. While new construction has met with ADA requirements, these facilities do not always pass the *usability test* by those who need the accommodations most. Universal Design was not built into new construction. Outdoor pedestrian routes are a challenge as well, with temporary closings of paths due to construction and, of course, in New England, snow and ice.

## **Technology**

**Nowhere in campus life is there more rapid evolution than in the use of technology. Students, faculty and staff are increasingly more tech savvy in what is clearly a technological revolution. The explosion of new technology can create more and more avenues for exclusion and restriction of use by people with disabilities or different styles of learning. Electronic texts are beginning to show up in courses. Campus website templates may be accessible by industry standards, but faculty- and staff- created websites are often not accessible. Few faculty members are aware of their responsibility to make certain that materials created or posted on the online learning management system, Blackboard, are accessible. Some actually resist taking this responsibility. Knowledge of accessibility issues and of resources for technology is not widespread. Hardware and software are frequently purchased without consideration of their accessibility.**

## **Teaching and Learning**

**Supports for students with disabilities and with learning differences based on personal, cultural, language characteristics are the strongest examples of current application of UDL principles on the UVM campus. Academic Support Programs staff and tutors use UDL principles and practice in their work with the registrar's office, individual students, student groups, and faculty members requesting assistance with providing accommodations for students. Examples of UDL practices recently put in place include the simplification of the process for requesting services and accommodations and expansion of some common accommodations such as note taking to**

**international and ELL students. In addition, online tutorials have been created for students to strengthen their use of technology for personal organization and learning support.**

**For faculty, there are currently four established programs offering support to faculty campus-wide to improve their teaching and to promote student learning and success: Center for Teaching and Learning (CTL), Community-University Partners & Service Learning (CUPS), Center for Cultural Pluralism (CCP), and Writing in the Disciplines (WID). The support offered by each varies in depth from drop-in assistance to consultation or departmental appointments to workshops, study groups, and resource libraries. Individualized consultation and technical assistance to faculty related to making changes in their courses range from one-time sessions to in-depth collaborative team consultation over semesters. All include, to some extent, principles of UDL into their work with faculty. The challenge is that they all are separate from each other, under different administrative authorities, and are not connected to a comprehensive or systematic set of professional development supports. Cooperation has recently been initiated among these independent groups which is promising for development of integrated and cohesive faculty professional development options on campus. A second challenge is that only a small percentage of faculties use these resources.**

**Staff Learning Resources are centralized. Training activities and web information accommodations are available to anyone with a disability or English as a second language requesting alternative**

formats or translations. UDL principles and practices have not been developed *per se*.

CATF is in the process of developing recommendations for each of these areas. Tools for assessment of accessibility available on line will assist in the process of measuring our web accessibility, interior space accessibility, accessibility of syllabi, classroom instruction, and learning management systems. Measures of degree of implementation of UDL practices in teaching can guide faculty professional development. If UVM stays on course to pursue UD and UDL, transformation is quite possible!

### **Emerging Action Steps**

While sharing of specific recommendations at this juncture would be premature, CATF members have agreed to embrace UD and UDL in creating a vision for UVM's future. As the group moves forward, consideration must be made for the impact of recent financial crises and the potential protectionism and fear of change that might result. Change is slow and dependent on many factors that can either facilitate the process or halt progress in its tracks. This is just the beginning of this journey and much will depend on the leadership and support of the next President of UVM to be named June of 2012. CATF members stay committed to taking this message forward to the UVM community.

### **Tips for the Journey**

While further assessment of these parameters and development of specific actions are underway at UVM, here are some tips that may expedite the process for those seeking to establish a UD and UDL framework for campus accessibility.

1) Consider adopting a *framework for managing change* which enables you to identify and plan for the elimination of barriers and strengthening of momentum. *Managing Complex Change* is a model developed and copyrighted by Dr. Mary Lippitt, founder and president of Enterprise Management, Ltd. Dr Lippitt identifies 5 essential elements: vision, skills, incentives, resources and an action plan for managing complex change ([https://www.prevention.org/inc/.../Forum\\_Winter\\_04\\_Managing.pdf](https://www.prevention.org/inc/.../Forum_Winter_04_Managing.pdf), retrieved 12/13/11). Lippitt's framework enables one to see that when one of the elements is missing, the results are predictably problematic. Using this framework can be very useful when faced with frustration, resistance, lack of movement or fear. Specific targets can then rise in priority and actions can address removal of those specific barriers.

2) *Create a team organized for collaboration.* Good collaboration will produce fundamentally different results, best suited to the specific situation and bringing together the best of all ideas represented from diverse perspectives.

Having the right team members is crucial. Your *team membership* should include representation across your campus community including students, faculty *and* staff. Initiatives within one group alone may improve some practices, but transformation will elude you. Keep the team to a *manageable size* and organize the team's work in subgroups of no more than 6-8. Organize for efficiency and *clear and frequent communication* both within the team and reporting to important constituencies and administrators.

3) **Create a shared *vision*** (one of the essential elements of change) of a campus that is fully accessible, where UD and UDL principles and practices are foundational throughout the college or university. We're talking about changing the culture, which is slow and often unguided. Talk about access as the civil rights issue that it is. Develop a shared understanding and written description of the desired state of an accessible campus. Describe it in ways that resonate across students, faculty and staff as individuals. UD and UDL are for *everyone* on campus and all visitors. Think about the whole community in casting this vision for an inclusive campus where diversity is respected and welcome. Recognize discrimination where you find it and bring it to light as an issue of civil rights.

4) **Build *skills***. Create or infuse existing modules, training and dissemination materials to educate every part of campus about UD, UDL and accessibility for all. An educated campus is a successful campus. Visit the National Center on Universal Design for Learning at <http://www.udlcenter.org/> and websites of campuses such as Ohio State, Washington State, Tacoma State, and University of Maryland to learn about how others are implementing UD and UDL or approaching accessibility issues. Specific considerations for training or professional development:

- a. ***Infuse*** UD and UDL into existing sources for training and professional development. Go where people are already getting their information and infuse there.
- b. **Use *real life examples*** that illustrate the intent and importance of laws and regulations.

**c. *Share exemplary practices* in website development and instruction using technology.**

**5) Consider *what motivates people*.** Explore ways to add incentives for changes you want to see occur. Creating new incentives doesn't need to be costly. Incentives can emerge from existing systems and structures such as employee performance appraisals and promotion or recognition for individuals or groups who exemplify implementation of UD or UDL. Be creative and seek to know what people on your campus would really appreciate.

**6) Consider ways to increase the *efficiency of existing resources*.** Look for places where redundancy or competition exists among the resources that could forward the desired changes and move the campus toward the vision. Create collaborative relationships even when groups function under different administrative authorities with the understanding that sharing the goal will benefit and improve each group.

**7) Create momentum with a concrete plan of action.** Use tools and materials available from other colleges and universities who have gone before in the process, learning from their successes and mistakes. Examples such as checklists for evaluation of information technology and web accessibility found at <http://www.w3.org/> or <http://www.washington.edu/accessit/it-checklist/> can assist in collection of data to inform the action steps. Similar tools are available to evaluate physical spaces, documents and presentations.

**Using a collaborative framework will strengthen commitment to active engagement of group members and increase the sharing of responsibility for the outcomes. Be specific and include the action, a target date, person(s) responsible, and how you will know that the action has been effective. Keep your action plan alive and moving forward with frequent communication. Celebrate your small successes and publish those that are big.**

### **Hopes for UVM's Future**

**CATF members have begun to create a vision of a fully accessible campus. Many factors will determine the outcome and the rate of progress. With a foundational commitment to UD and UDL principles and practices, and a framework for managing this very complex change, accessibility for all is attainable. Time will tell.**

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December 2011 from  
<http://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100629.html>.**

**AIM [2011]. Report of the Advisory Commission on Accessible  
Instructional Materials in Postsecondary Education for Students  
with Disabilities. Retrieved 15 December 2011 from  
<http://www2.ed.gov/about/bdscomm/list/aim/publications.html>**



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***Skip Stahl***

***Senior Policy Analyst***



# UDL in Postsecondary Practice

*How the Principles and Guidelines of Universal Design for Learning can enhance the persistence and retention of all students, including those with disabilities*

## The UDL Principles

### *Multiple Means of Representation*

*Provide flexibility in the way information is presented*

### *Multiple Means of Action and Expression*

*Provide flexibility in the ways students respond or demonstrate knowledge and skills*

## UDL in Postsecondary Practice

### UDL Defined

The 2008 Higher Education Opportunity Act (HEOA) provides, for the first time, a statutory definition of Universal Design for Learning in the United States.:

❖ ***Section 103(24) UNIVERSAL DESIGN FOR LEARNING.--***

***The term `universal design for learning' means a scientifically valid framework for guiding educational practice that—***

- ***(A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and***

- *“(B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.”*

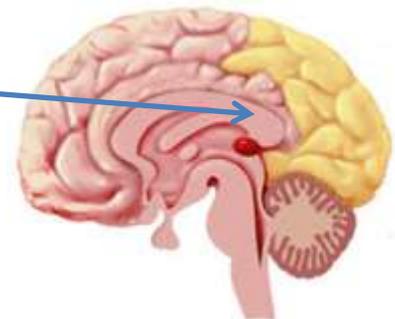
This statutory language positions UDL as a framework for guiding all aspects of higher education instructional practice, and the four components of the curriculum: Goals, methods, materials and assessment. The definition is inclusive, noting that a UDL approach can be essential for some students--those with disabilities or those who have limited command of English--with an implied emphasis on UDL as simply a better approach for all students.

## **The Neurological Foundation of UDL**

Neuroimaging techniques developed over the past 25 years provide dynamic evidence of how the brain learns. The interplay of three separate neural networks combine to create a complex interplay of how information is perceived and synthesized, how and in what ways we interact with our environment, and the critical importance of maintaining engagement in the face of challenging tasks.

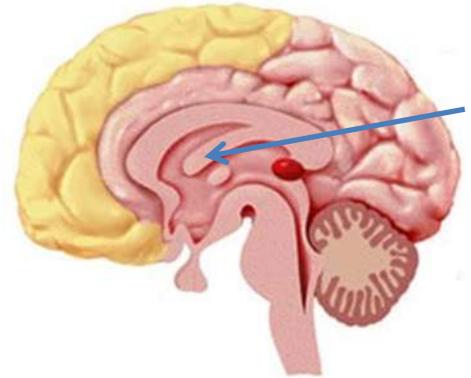
### **Recognition Networks**

The hind portion of the brain predominantly functions in a storage capacity, interpreting sensory stimuli--visual, auditory, tactile, etc.--and helping to interpret new information in the context of what is already known, working to match the unfamiliar with the familiar.



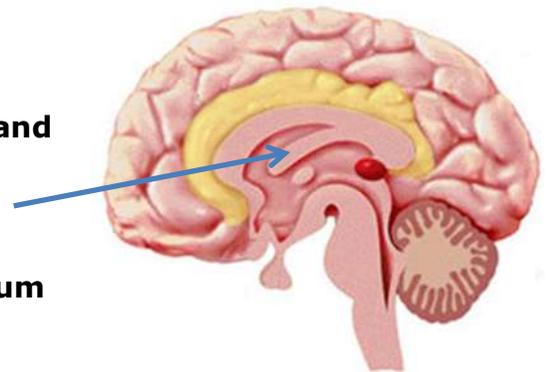
## Strategic Networks

The front portion of the brain is committed to planning and performing tasks, initiating purposeful behaviors, and organizing responses to both internal and external events.



## Affective Networks

The internal organs of the brain monitor and sustain (or withdraw) motivation, persistence and engagement. They respond to external stimuli (threat, pleasure, etc.) and internal prompts (hunger, discomfort) to help maintain equilibrium



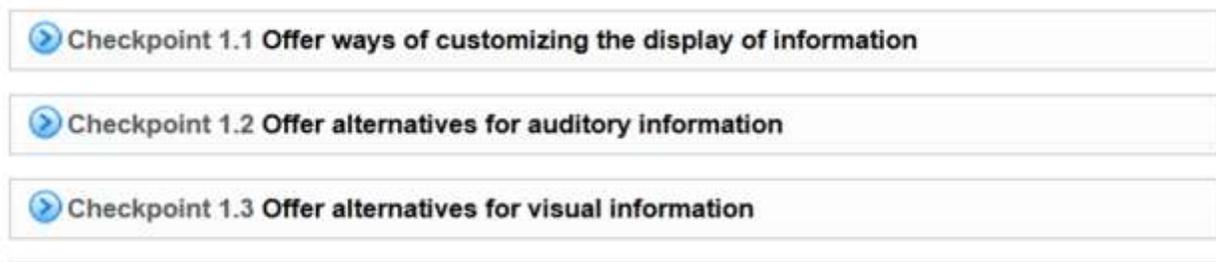
## UDL is About Learning

Understanding how learning occurs in the brain was the guiding factor in the development of the three UDL principles, and the foundation for the

I. Provide Multiple Means of Representation	II. Provide Multiple Means of Action and Expression	III. Provide Multiple Means of Engagement
Perception	Physical action	Recruiting interest
Language, expressions, and symbols	Expression and communication	Sustaining effort and persistence
Comprehension	Executive function	Self-regulation

subsequent development of the UDL Guidelines, a detailed articulation of the UDL framework. Each of the three principles is associated with three Guidelines:

And within each Guideline, one or more important checkpoints exist. In the graphic below, the Checkpoints for Principle One (Representation); Guideline #1 (Perception) are detailed:



**Selecting Checkpoint 1.1 provides additional descriptive information:**

In print materials, the display of information is fixed and permanent. In properly prepared digital materials, the display of the same information is very malleable and customizable. Such malleability provides options for increasing the perceptual clarity and salience of information for a wide range of learners and adjustments for preferences of others. Educators and learners should work together to attain the best match of features to learning needs:

- *The size of text, images, graphs, tables, or other visual content*
- *The contrast between background and text or image*
- *The color used for information or emphasis*
- *The volume or rate of speech or sound*
- *The speed or timing of video, animation, sound, simulations, etc.*

- **The layout of visual or other elements**
- **The font used for print materials**

**Finally, examples and resources associated with each Checkpoint are provided:**

Example/Resource	Why UDL?
 <p><b>AIM Explorer</b></p> <p>"The AIM Explorer is a free simulation that combines grade-leveled digital text with access features common to most text readers and other supported reading software. Magnification, custom text and background colors, text-to-speech (synthetic and human), text highlighting, and layout options are presented in a logical sequence to help struggling readers decide which of these supports might help them to access and understand text."</p> <p>Age Group: All ages  Content Area: All content  Cost: Free  Technology Involved: Internet connection to download; once downloaded, application can be used with or without an Internet connection</p>	<p><b>Why UDL?</b> The AIM Explorer allows users to explore their preferences for customizable features such as: magnification, text and background colors, and layout, TtS voice and speed, and more</p> <p><b>See also:</b>  <a href="#">1.3: Offer alternatives for visual information</a>  <a href="#">2.3: Support decoding of text, mathematical notation, and symbols</a></p>

**As are research-based references that support each Checkpoint (samples below):**

**Fuchs, L. S., Fuchs, D., Eaton, S. B., Hamlett, C., Binkley, E., & Crouch, R. (2000). Using objective data sources to enhance teacher judgments about test accommodations. *Exceptional Children, 67(1), 67-81.***

**Hughes, L., & Wilkins, A. (2000). *Typography in children's reading schemes may be suboptimal: Evidence from measures of reading rate.* *Journal of Research in Reading, 23(3), 314-324.***

**Hughes, L. E., & Wilkins, A. J. (2002). *Reading at a distance: Implications for the design of text in children's big books.* *The British Journal of Educational Psychology, 72(2), 213-226.***

**Kalyuga, S., Chandler, P., & Sweller, J. (2000). *Incorporating learner experience into the design of multimedia instruction.* *Journal of Educational Psychology, 92(1), 126-136.***

*Knowlton, M., & Woo, I. (1989). Functional color vision deficits and performance of children on an educational task. Education of the Visually Handicapped, 20(4), 156-162.*

*Koenig, A. J. (1992). The relative effectiveness of reading in large print and with low vision devices for students with low vision. Journal of Visual Impairment and Blindness, 86(1), 48-53.*

**The UDL Guidelines, their Checkpoints, examples and research are available at <http://www.udlcenter.org/aboutudl/udlguidelines>**

## **The Importance of Representing Information in Multiple Ways**

When information is presented in multiple media and formats it helps to eliminate ambiguity, clarify the area of focus and increases the potential for accurate understanding. Cross-media representations –an audio rendering of an algebraic equation, for example—may also create some additional challenges.

Rendering mathematics in an audio format without providing some additional information about the structure of an equation can create ambiguity. For example, if the narration states “write 1 over X plus 1”, then both of the response below are correct.

$$\frac{1}{x+1} \qquad \frac{1}{x} + 1$$

In order to eliminate this type of redundancy in spoken equations, rendering an “overview” of an equation before providing all the details may help the listener fit all the details into the overall equation:

$$\frac{\sqrt{x^2 + y^2}}{5} + a = \frac{\sqrt{x^2 + y^2} + 5a}{5}$$

**First depth: "a fraction plus a variable equals a fraction"**

**Second depth: "start-fraction--a square root over 5--end-fraction--plus "a" equals--start-fraction--a square root plus 5 a over 5--end-fraction."**

**Research at Purdue University using "MathSpeak" with this dynamic overview approach to spoken equations indicated:**

- *The initial results were, as would be expected, students correctly identified the equations less than 50% of the time using conventional read aloud techniques.*
- *However, when using MathSpeak, students' performance on similar items increased to 95% accuracy*

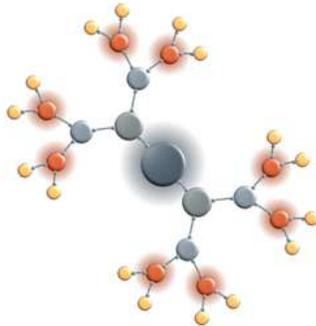
**For an online example of this approach please visit**

**<http://speechtoolbar.texthelp.com/#MathML>**

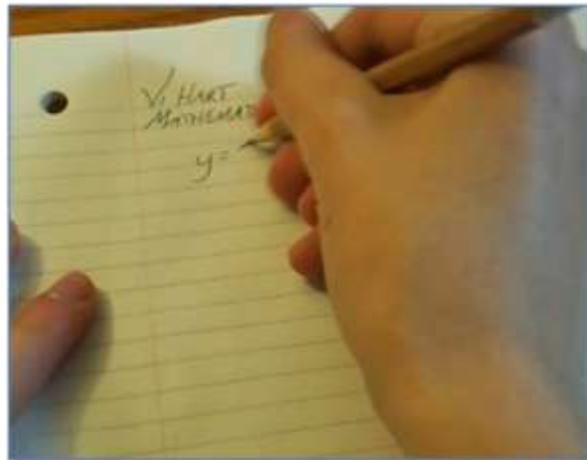
## **The Importance of Expressing Information in Multiple Ways**

**Providing students with multiple ways of expressing what they know generally enables them to tap their expressive strengths. In a math class focused on Binary Trees (a Binary Tree is a non-linear data structure which is used to store data in a very efficient manner) typically students are required to exhibit their understanding**

numerically, and doodling is generally perceived to be avoiding the task. In general Binary Tree looks like this:



However, Vi Hart, a young woman who relies on graphical representations to give concrete meaning to numeric symbols and sequences, uses doodling to create binary trees. Her online video depicts her unusual but expert approach to creating Binary Trees



<http://vihart.com/doodling/>

Learners differ in the ways that they can express what they know. For example, individuals with significant movement impairments (e.g., cerebral palsy), those who struggle with strategic and organizational abilities (executive function disorders), those who have language barriers, and so forth approach learning tasks differently. Some express themselves

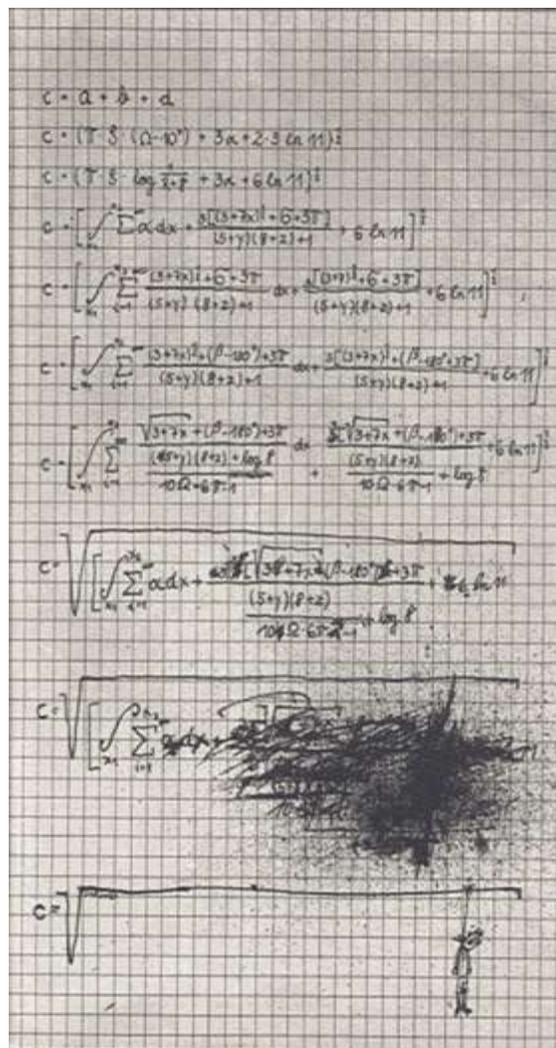
well in written text but not speech, and vice versa. Action and expression require a great deal of strategy, practice, and organization, and this is another area in which learners can differ. In reality, there is not one means of action and expression that will be optimal for all learners; providing options for action and expression is essential.

## The Importance of Engagement

Supporting persistence in the face of challenging tasks is an important factor in eliciting strong academic achievement—students who are disengaged, frustrated, unaware of or unable to seek support withdraw from challenges precipitously or even fail to initiate a first attempt.

The image on the right is a good example of frustration in the face of a challenge perceived to be insurmountable.

Affect represents a crucial element to learning, and learners differ markedly in the ways in which they can be engaged or motivated to learn. There are a variety of sources that can influence individual variation in affect including neurology, culture, personal relevance, subjectivity, and background knowledge, along with a variety of other factors. Some learners are highly engaged by spontaneity and novelty while others are disengaged, even frightened, by those aspects, preferring strict routine. Some learners might like to work alone, while



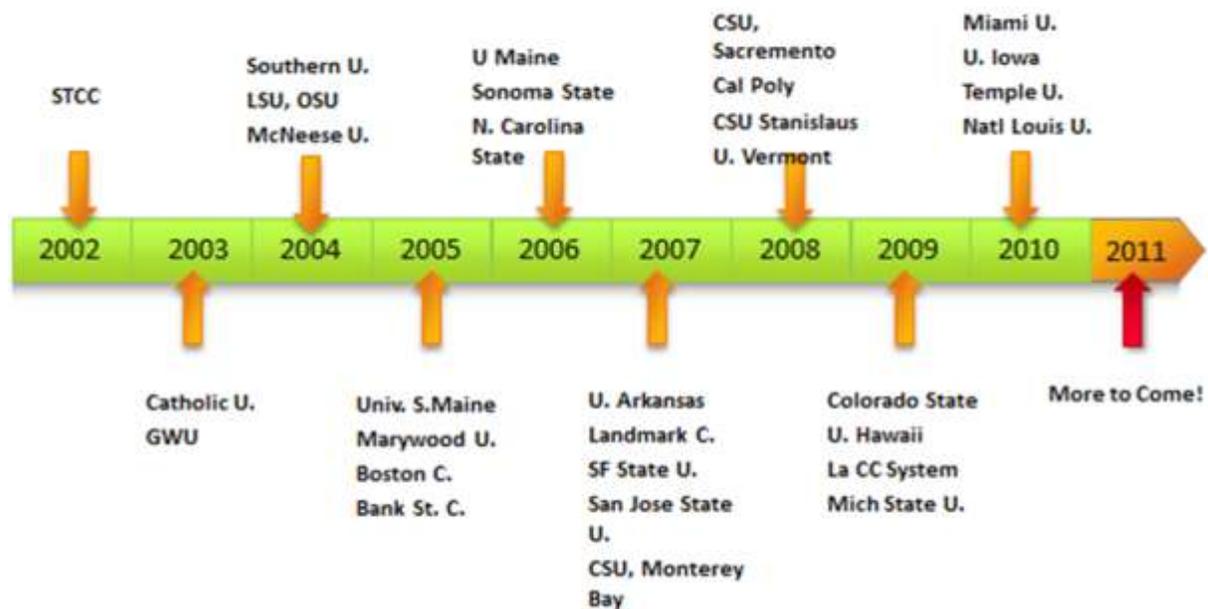
others prefer to work with their peers. In reality, there is not one means of engagement that will be optimal for all learners in all contexts; providing multiple options for engagement is essential.

Many kinds of learning, particularly the learning of skills and strategies, require sustained attention and effort. When motivated to do so, many learners can regulate their attention and affect in order to sustain the effort and concentration that such learning will require. However, learners differ considerably in their ability to self-regulate in this way. Their differences reflect disparities in their initial motivation, their capacity and skills for self-regulation, their susceptibility to contextual interference, and so forth. A key instructional task is to build the individual skills in self-regulation and self-determination that will equalize such learning opportunities. In addition, if the instructional environment can provide options that equalize accessibility by supporting learners who differ in initial motivation and self-regulation skills, then these learners have a significantly increased possibility of achievement.



### **Growing the UDL Field**

In the United States, the number of postsecondary institutions that have incorporated a UDL approach into their instructional practices has grown considerably over the past decade.



Collaborations like the National Center on Universal Design for Learning – [www.udlcenter.org](http://www.udlcenter.org), the National UDL Task Force – <http://www.advocacyinstitute.org/UDL/>, and the Universal Design for Learning Implementation and Research Network – <http://udl-irn.org/> have provided opportunities for information dissemination.

## System-Wide Approaches are the Most Effective

Often a UDL approach or initiative will begin by focusing on access—access to instructional materials and access to instructional practices. This is a logical place to begin since accessibility is a concrete and understandable concept. If instructional materials and practices cannot reach students because they are inappropriate for their use, then these practices and materials will not be able to teach students.

Support for ensuring that all materials and instructional approaches are accessible to and appropriate for the widest possible range of

students has been provided by the United States Department of Education Office of Civil Rights (OCR) and the Department of Justice (DOJ). Two recent publications are available online and delineate the responsibilities of institutions of higher education in this regard:

On June 29, 2010, OCR and DOJ issued a joint "Dear Colleague" letter (DCL) to college and university presidents regarding the use of electronic book readers and other emerging technologies that are inaccessible to students who are blind or have low vision<sup>1</sup>. The letter explained that requiring use of an emerging technology in a classroom environment when the technology is inaccessible to individuals with disabilities is discrimination prohibited by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act unless those individuals are provided accommodations or modifications that permit them to receive all the educational benefits provided by the technology in an equally effective and equally integrated manner. Postsecondary presidents were asked to take steps to ensure that their institutions refrain from requiring the use of any electronic book reader, or other similar technology, in a teaching or classroom environment as long as the device remains inaccessible to individuals who are blind or have low vision.



<sup>1</sup> <http://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100629.html>.

On May 26, 2011, OCR issued a Frequently Asked Questions (FAQ) document<sup>2</sup> with accompanying Dear Colleague Letters<sup>3</sup> that provided more detail about schools' responsibilities when using emerging technology. The FAQ clarified that the principles articulated in the June 2010 DCL apply to all emerging technologies, not just electronic book readers, and that the principles in the DCL apply not only to students who are blind or have low vision, but also to students with other disabilities, such as dyslexia, that affect their ability to access written materials in a traditional manner. The nondiscrimination requirements of Section 504 and the ADA apply to all of the operations of a school, and, thus, all faculty and staff must comply with these requirements as outlined in the June 2010 DCL. The principles underlying the June 2010 DCL apply not just to the postsecondary schools to which it was sent, but also to elementary and secondary schools. In addition, the FAQ outlines considerations related to accessibility that educational institutions should apply when purchasing and implementing emerging technologies.

### **In the UDL Framework, Learning is the Most Important Word**

UDL is more than accessibility; it is about enhancing learning. While ensuring accessibility creates the foundation for institution-wide UDL implementation, it is only a starting point:

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<sup>2</sup> <http://www2.ed.gov/about/offices/list/ocr/docs/dcl-ebook-faq-201105.html>.

<sup>3</sup> <http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201105-ese.html>; <http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201105-pse.html>

- *UDL is not just access to instruction*
- *UDL is not (only) technology*
- *UDL is about Learning*
- *Learning is the core business of postsecondary institutions*

## **UDL Works in Higher Education**

### **When:**

- **it is a framework embraced by the entire institution**
- **efforts to plan for and address learner diversity are strongly interrelated**
- **challenge, mastery and making a contribution drive people; people drive systems – systems can effect change, and**
- **the result is a responsive environment with the built-in capacity to meet the needs of all learners.**



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# **Faculty Attitudes About Disabilities and Universal Design**

***Holly B. Parker, Ed.D. & Lawrence G. Shelton, Ph.D.  
University of Vermont***

**Our purpose in this essay is to present a summary of two sets of data on faculty knowledge and attitudes about students with disabilities and accommodations, as well as their familiarity with UDL. In our many years of experience as faculty, with faculty, and with students, we have encountered many situations in which faculty have questioned the appropriateness of admitting students with disabilities to the university, have resisted making changes to their courses to accommodate students with disabilities, or have discriminated against students, either passively or actively. We have offered training for faculty about disabilities and accommodations, and attracted very small numbers of faculty. Is it the case that faculty are prejudiced against students with disabilities, or do their actions, or inaction, reflect lack of knowledge?**

**We have tried to put our experience into the context of what we know about faculty work. In general, university faculties have little formal preparation for teaching. Teachers at the elementary and secondary level are required to study pedagogy and to engage in formal supervised student teaching practica. University faculties are regarded as experts in our field of study, but many of us have never**

studied pedagogy or had training supervised by pedagogical experts. We learned to teach by being students and observing the faculty under whom we studied. We often have learned our subjects very thoroughly, but have not reflected much on how we learned them. If we have considered how our students learn, we have studied how *successful* typical students learn, not students with disabilities. Students with disabilities have not been in our classes until recently, when federal laws have given them access to public education from an early age. Thus, when we ask faculty to teach differently, resistance is natural, since we may not know any other ways to teach.

As we designed the UDL@UVM project described in other essays in this issue, we felt it was incumbent on us to examine objectively our impressionistic understanding of faculty. Two components of the UDL@UVM project were designed to find out what faculty knows about disabilities, about teaching students with disabilities, and about universal design for learning. Additionally, we wanted to learn how faculty feels about these issues. How do faculty regard students with disabilities in their classes and the accommodations they are asked to make so the students can learn effectively and succeed in their classes? What kind of training and experience in teaching have they had?

### **The Current Faculty Survey**

The first component we will describe is a survey of current faculty at the University, and focuses on faculty knowledge and attitudes about students with disabilities. The survey instrument was a

copyrighted survey developed by Dr. Susan Vogel and known as the *Assessment of Campus Climate to Enhance Student Success: Disabilities in Higher Education - Faculty Questionnaire* (Vogel, 2010). This survey is the result of almost 20 years of research on the experiences of students with disabilities in higher education settings.

The 2010 version of the faculty survey consists of 35 questions divided into five subgroups: (a) knowledge, (b) practices, (c) attitudes, (d) topics of interest, and (e) alternative methods for staff development opportunities. Composite scores were calculated for four subgroups of questions regarding students with disabilities (knowledge, fair accommodations, fair modifications, and faculty needs and interests). The Cronbach alpha reliability for the four constructs derived was well above .7 for all composites (Vogel et al., 2008).

The survey was sent to 648 full and part time teaching faculty in September 2010. The survey was completed by 192 faculty when the survey closed in November 2010, which accounts for 30% of the total number of faculty invited to take the survey.

The survey respondents were composed of 39.6% males and 57.3% females, with 3.1% choosing not to disclose their gender. The majority of the respondents were in a tenure track position at the university (56.8%). The remainder were lecturers. Respondents indicated a generous amount of teaching experience with 47.6% reporting having 16 or more years of experience teaching in higher

education and 23.6% with 11-15 years of experience. Almost all of the respondents were also full time faculty members at the university (97.4%). The race of the respondents was primarily white (81.8%). Some chose not to answer the question about race (5.2%), some respondents identified as Asian (3.6%), some Hispanic (1.6%), and African American (1.6%), and a small number identified as mixed race (.5%). The remaining 5.7% selected the "prefer not to disclose" option. Given that the majority of the respondents were experienced faculty, it is consistent that the age of the majority of respondents was 36 years old and above (90.7%). Please note that the sample of 30% of volunteer faculty could not be compared with a non-respondent sample; therefore the results and analysis must be generalized only to the faculty who did respond. Data from this sample cannot be generalized as a campus-wide response from faculty. We do not know the characteristics of the faculty who did not respond, or why they chose not to complete the survey.

The results indicate a low level of knowledge about students with disabilities and the federal laws that pertain to higher education. Faculty respondents reported less than 30% knowledge level on all of the knowledge questions regarding students with disabilities in their courses. This includes questions about disabilities themselves, as well as knowledge of accommodations related to teaching practices for students with disabilities. Promisingly, the responding faculty indicated a high level of willingness to engage in practices that support students with disabilities. More than seventy percent of the respondents indicated a willingness to provide reasonable

**instructional accommodations for students with disabilities and also to provide test accommodations. The attitudes of faculty about making accommodations for students with documented disabilities are also positive. Items referring to fairness for students *without* disabilities when certain accommodations are made for students with disabilities were rated as very fair by 60% or more on four of five accommodations. Also, the group of faculty respondents indicated a low level of knowledge regarding Universal Design for Instruction and Assessment. Fewer than twenty percent of the respondents indicated that they were knowledgeable regarding universally designed instruction and assessment practices.**

**These data support providing more professional development opportunities for faculty to learn about federal laws and the practices that support students with disabilities in the higher education classroom, such as Universal Design for Learning. More professional development is needed for the faculty on campus, even for the respondent sample because while they are very willing to provide the needed accommodations for students, they do not have adequate knowledge of types of student disabilities and how instructional practices can be designed to be more accessible.**

### **The New Faculty Survey**

**Our second component is a survey of faculty joining the university in full time positions. We designed the survey to find out what training new faculty had for teaching, how much teaching experience faculty had, and what experience they had in teaching students with disabilities. Additionally, we asked about their**

knowledge about disabilities, accommodations, and universal design, and their attitudes about these. These questionnaires were administered at the New Faculty Orientations held just before the beginning of each academic year in 2009 through 2011. One hundred and five [105] faculty completed the surveys.

We discovered that “new faculty” often are not really “new”: only 12 of the 105 had no prior teaching experience. 49 had more than five years experience, and 20 had more than ten years. They were not all new to UVM, as well. A significant number had taught part-time or as graduate students at UVM before being offered full time appointments. Thus, our information does not characterize faculty who have just completed graduate study and entering their first teaching positions. Rather, the results are from a group of faculty with a wide range of experience, much like the general faculty surveyed in the first component of our study.

Summarizing the experience and attitudes of the new faculty, we found the following:

***1. Formal preparation for college teaching:***

Half of the new faculty have taken at least one course on college teaching. Slightly more than half had a teaching apprenticeship in graduate school. Two-thirds have taken two or more workshops on teaching. More than half have read at last one book on teaching, usually as part of a course on teaching. Less than a quarter occasionally or regularly read a professional journal on college teaching.

## ***2. Prior teaching experience:***

Over 90 % have taught a college course, while more than half have taught 6 or more courses. 75% have taught for 6 or more years.

## ***3. Familiarity with ADA requirements:***

Sixty percent reported they were a little familiar or somewhat familiar with ADA requirements, but only 13 % considered themselves very familiar.

## ***4. Familiarity with specific categories of disability:***

Nearly three quarters reported they are a little or somewhat familiar with learning disabilities, but only 14% say they are very familiar. Approximately 5 % report that they themselves have disabilities that affect learning

## ***5. Experience teaching students with disabilities and making accommodations:***

Two-thirds have had students with disabilities in courses they have taught, while more than that, three-quarters, report having made accommodations in their courses. We're not sure how to understand the discrepancy in these reports. The majority have had experience with learning disabilities and English Language Learners. Faculty were least familiar with sensory and mobility disabilities and with psychiatric disabilities.

## ***6. Familiarity with common accommodations:***

Only about 10 % of new faculty considered themselves very familiar with accommodations for students with disabilities, while 72% were a little or somewhat familiar with accommodations.

## ***7. Expectation for teaching students with disabilities and interest in learning more:***

The majority of new faculty expect to have students with disabilities in their courses at UVM. Almost all, 95%, would like to learn more about teaching better. Ninety percent think it is important that all students achieve well in their courses. Disappointingly, however, only 75% would like to learn more about designing courses so students with disabilities can achieve better.

### ***8. Knowledge of Universal Design:***

More than three quarters of the faculty had little or no knowledge of UDL, and only 3 % were very familiar with the principles.

### **Conclusion:**

In conclusion, the two surveys are consistent with each other. They indicate that the faculty, both new and continuing, are experienced, but not formally trained in teaching. Those faculty who have the most experience teaching are moderately but not very knowledgeable about disabilities and accommodations. This suggests their knowledge comes not from specific training, but from the experience of having to make accommodations in specific situations. On the bright side, faculty are generally motivated to teach all students well, and interested in learning more about student with disabilities.

Our results indicate clearly that the university faculty are not well prepared to implement universal design to create fully inclusive teaching that will maximize success for students with disabilities. Universities must educate and support the faculty if we are to reach the goal of full access to educational opportunity. It is imperative

**that all faculty understand the principles and policies of full access and the legal requirements of the Americans with Disabilities Act [ADA]. Future faculty will benefit if their graduate education includes more deliberate preparation for teaching students with disabilities. Once employed, faculty must be encouraged and expected to become knowledgeable about universal design of courses, about disabilities, and about accommodations. Initiatives to train faculty will work best and have the broadest impact if they are designed to enhance and support faculty teaching and inclusive course design in general, not solely focused on disabilities and accommodations. Perhaps most importantly, these goals must be represented in the culture of the university community, and reflected in faculty evaluation and reward processes.**

**While there is a long road ahead to full access, we believe Universal Design for Learning provides an important means for faculty to progress toward that goal. Our data and our experience indicate that when opportunities are provided, faculty are motivated to learn to include all learners, and open to the journey.**

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# **Collaborative Consultation with Faculty to Promote Universal Design for Learning (UDL): Supporting Learning Success for All**

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## **Introduction**

In an age when tuition dollars are weighed against the value of the education they purchase and colleges compete aggressively to market their programs to wider and wider audiences, demonstrable learning results of a college education have become critically important. As described elsewhere in this special issue, Universal Design for Learning has emerged as a research-based approach to teaching and learning that has the potential to help colleges deliver the goods. Teaching and learning designed to address affective, recognition and strategic networks of the brain increase the success of the learning experiences for everyone.

UDL@UVM is a three-year model demonstration project funded by the US Department of Education, Office of Postsecondary Education (10/1/08 – 9/30/11). Originally titled “Supporting Faculty to Teach ALL Students: A UDL Consulting Team Model” this project focused on five main objectives:

- *To create a campus map of resources and supports for accessibility;*

- *To conduct a study of faculty attitudes related to disability and accommodations;*
- *To develop and test a collaborative consultation model to support faculty implementation of UDL;*
- *To introduce UDL in new faculty and graduate teaching fellow orientations; and,*
- *To develop web-based resources for UD and UDL.*

This article will describe the collaborative consultation model and the very positive results of implementation of the model in faculty consultations over a two-year period as documented by external evaluation.

## **Collaborative Consultation Model for Faculty Implementation of UDL**

**Why use collaborative consultation? Aren't workshops, courses, and mentorships effective for faculty professional development and support for improving their teaching? Our sense was that while these experiences might result in changes in practice related to a specific area of teaching and learning, these did not represent the potential for a total "makeover" of a course that UDL course planning might provide. Not to say that UDL requires such drastic changes, but once faculty members begin to think about their courses through the lens of UDL, they are often not satisfied with just tweaking or making subtle changes. UDL is simply a different way of thinking about teaching and learning and the best practices to bring about the most success for all students. Consultation focused on a specific course is more likely to result in faculty**

understanding that can be applied to make changes in the course, and also in future courses.

Many people use the terms *cooperation*, *coordination* and *collaboration* interchangeably. We see a fundamental difference in these three approaches to people working together to achieve outcomes. Consider the distinct differences in roles and actions depicted in Table 1.

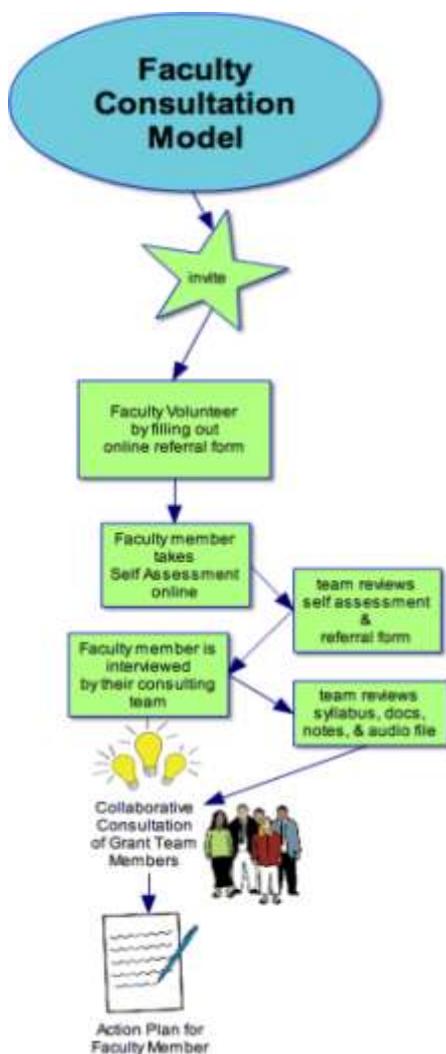
**TABLE 1: Comparison of Three Ways Groups Can Work Together**

<i>Cooperation</i>	<i>Coordination</i>	<i>Collaboration</i>
Partners agree to <i>assist</i> each other to <i>meet each other's goals</i> yet remain autonomous	Seeks to increase efficiency, maximize resources and avoid duplication or redundancies	Seeks to effect meaningful change overall toward a <i>shared goal</i>
Based on information sharing	Partners <i>facilitate</i> accomplishment of <i>each other's goals</i>	Generation of <i>creative</i> approaches uniquely suited to achieving the goal
Tend to exist when a power differential exists between partners		Joint planning
Mutual agreement		Joint implementation & evaluation
		Shared responsibility and authority

**It is important to note that collaboration takes practice and requires commitment to the process as well as the outcome.**

**Similarly, collaborative consultation is a fundamentally different way to go about making changes to faculty practice. Since our purpose was to provide technical assistance to individual faculty to implement selected UDL practices in their teaching and courses, and since the author had very successful experiences providing collaborative technical assistance with diverse public school teams**

**serving students with disabilities, it seemed a fitting application. Collaborative teamwork is based on research of effective group process and productivity. Its foundational assumption is that no one discipline or professional has all the answers to the concern at hand, and that multiple perspectives and varied expertise enable creativity and development of the best-suited and unique solutions. It has also been found to be an effective way to wrap support around a focal change agent. UDL@UVM Consultation Teams were created with three perspectives represented by different roles: faculty member, graduate student, and technology specialist. These are the three essential perspectives and skill sets required. All of the team members were trained in UDL and were part of the project's Design**



Team guiding and adjusting the process in a formative way. In addition, all consultation team members were taught and given ample practice functioning as a collaborative team.

## **UDL@UVM Faculty Consultation Model Steps**

### **Phase 1: Information Gathering**

The first step in the process is to gather in-depth information about the course. The faculty member begins with an on line *Self Assessment of UDL Practices* that serves as a baseline. The self-assessment is based on the original UDL Guidelines developed by CAST and which were adapted to post-secondary instruction.

Next, the faculty and graduate student members of the consultation team conducted a semi-structured and recorded *Initial Interview* and gathered materials related to the course. The interview served to allow consultation team members to understand fully the faculty member's vision of the course, expected outcomes, the type of course or class configuration and so on.

Consultation Team members then *review all the information* including the self-assessment data and prepare for sharing ideas from either the faculty, student, or technology perspective of specific UDL practices to consider.

Finally, Phase I concludes when all the Consultation Team members *meet to brainstorm and share preliminary recommendations*. At this time a scoring system is applied which is described elsewhere in this newsletter issue. Intent and weight of each of the practices is scored and a faculty "UDL profile" of practices is created for the

course under consideration. This profile is also used to measure changes in practice following the consultation

## **Phase 2: Action Planning**

Unique to this consultation process is that the faculty member decides the actions to be taken, with team input. All of the possible changes in practice are discussed and evaluated collaboratively. This means that there are no experts, but that all have valued and necessary expertise and perspective which make the final plan cohesive, comprehensive and yet do-able. The action plan is recorded and serves as a guide to all that takes place in the consultation weeks or months. Action steps, target dates, person(s) responsible and evaluation of the outcome of the action are all included in the Action Plan. As described above, the process involves a shared goal: creation of uniquely suited solutions, jointly implemented, meaning the team actually shares in the responsibility for some actions.

## **Phase 3: Implementation**

The final step of the process is implementation of the agreed upon Action Plan. As actions are completed, new ones often emerge. Some faculty will continue on and go further with the process, while others make some changes and then finish or close the consultation. Once the faculty member is ready to close the consultation, the self-assessment is repeated and an exit interview conducted.

## **Summary Data and Practices**

During the implementation of the Consultation Model 23 faculty consultations took place along with a number of group activities

with graduate students or departmental faculty. The individual consultations were from a range of departments and/or disciplines represented including English, Psychology, Education, Engineering, Health Sciences, Nursing, Community Development & Applied Economics, and Business. The number of consultation contacts with the team ranged from 1 to 15 meetings and some spanned up to three semesters. Each faculty member was served by a minimum of a 3-member team, most by more than 3 as other members on the second consultation team often contributed.

Sample practices that faculty members chose to include to increase UDL in their courses are found in Table 2.

**TABLE 2: Sample UDL Practices Made by UVM Faculty Consultees**

<b><u>Multiple Means of Representation</u></b>	<b><u>Multiple Means of Expression</u></b>	<b><u>Multiple Means of Engagement</u></b>
<ul style="list-style-type: none"> <li>• Syllabus revisions</li> <li>• Selection of digital textbooks</li> <li>• Increased use of graphics, visuals and videos</li> <li>• Use of concept maps</li> <li>• Posted class notes, powerpoints, and audio files</li> </ul>	<ul style="list-style-type: none"> <li>• Clickers</li> <li>• Options for assignments, personal goal setting</li> <li>• Short self quizzes in learning management system to monitor progress</li> <li>• Video presentations by students</li> </ul>	<ul style="list-style-type: none"> <li>• Group work</li> <li>• Self-assessment</li> <li>• Reflection activities</li> <li>• Service-learning activities</li> </ul>

### **Collaborative Consultation External Evaluation**

As part of our project evaluation, an external evaluator was contracted to assess the effectiveness and impact of the collaborative consultation process. Semi-structured interviews with consultees were conducted. The results confirmed the effectiveness

and benefit of the model. Some of the comments the consultees made about the process follow.

*"The consultation was the biggest benefit—having the attention of a team to talk to about your class and to give feedback. Usually we work in isolation, so it was very helpful to have discussions. From a bigger picture, it was helpful to develop action plans and the process was very powerful."*

*"They were timely. They offered good suggestions. I never felt those suggestions were judgmental...or that there was an expectation that [their ideas] would automatically be embedded in my course. I didn't feel that at all."*

*"They were explaining to me how Blackboard could be so useful doing all this different work, showing all these different ways of expressing what is going on in class, and how the material is doing different things. 'Blackboard?' I asked them, 'Who are these students that you are teaching that actually go there and look at all the supplemental information?' The 'ah ha' moment was when I realized it didn't have to be very many of them. It only had to be the ones that wanted to."*

*"In semesters past, I had received really emotionally-laden comments on the comments part of course evaluations [from students). This semester [after the UDL consultation], I had none. For whatever reason, they weren't laying blame with their dissatisfaction with the course on the professor. In the past, I felt they blamed the professor, but now they are making the choices."*

## Conclusion

The UDL@ UVM Collaborative Consultation model revealed that Faculty became fully engaged and motivated. They expressed to us that it was rare for anyone to be interested in their teaching. They were very appreciative of the individual focus and the fact that this was *consultation*, and not "training". Faculty found that they were, indeed, in charge of the process and plan and the team was there to address *their* goals for the course. In some cases steps taken were small steps, but in all cases changes occurred with support for the development of new skills and new applications of technology in their teaching.

Next steps in the refinement of the model will be to trim for efficiency and to further develop group consultation and program or department consultation with a continued focus on individual courses as well.



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# **Applying Universal Design for Learning to Academic Support Programs: Student Engagement Outside of the Classroom**

*Ellen McShane, Ed.D.*

## **Introduction**

Shifting demographics and a changing American economy mean that higher education administrators are placing increasing importance on retaining the students who enroll in their institutions. By applying Universal Design for Learning (UDL) principles in higher education, colleges and universities can impact the important work of retaining students. Academic support programs in higher education settings can utilize UDL principles to focus on how services and programs support multiple means of representation of information, student engagement, and expression of learning to enhance academic integration and retention of students.

Tinto (1998) demonstrated the importance of social and academic integration in student retention, but he makes the case that “academic involvement seems to be more important for persistence than social involvement” (p. 170) and that academic engagement *outside* of the classroom has a positive impact on retention. These concepts take on importance for academic support programs since often these programs link students with academic experiences

**beyond the classroom and thus take on new meaning and importance when seen through the lens of retention.**

**Academic support programs, which deliver tutoring and other academic support services, can demonstrate how student academic engagement outside the classroom through (a) peer interaction in study groups, (b) a focus on how the brain works, and (c) creative use of technology enhances the learning process and impacts the retention of students.**

### **The Impact of Peer-to-Peer Learning**

**Thomas and Brown (2011) explain that the value of a higher education degree is enhanced when a student is immersed in a culture of learning that happens throughout the day and night. Impromptu late-night conversations, study groups, student organization meetings and events all offer opportunities for students to integrate and to personalize the information they are learning through peer interaction. As a result, the student creates a higher value to their education and makes connections that were not present prior to these experiences. Student engagement as a UDL principle reinforces the importance of using peer interaction in higher education settings. Academic support programs in colleges and universities can foster a culture of learning based in peer relationships that focuses on activities outside of the classroom.**

**Academic support programs often provide peer-tutoring opportunities. The more peers are enlisted as partners in the learning environment, the more students will learn and the more**

**they will be engaged. The peers stand together on equal ground in a relationship that fosters trust. By diminishing the teacher-student relationship, peer tutoring takes on an element of personal discovery that supports acquisition of knowledge. Peer-to-peer learning opportunities move the educational focus from teaching to learning with an emphasis on how students can learn together from one another.**

**Small-group experiences, such as study groups, offer important benefits for college students by utilizing peer-to-peer learning. Many students grow intellectually and personally from a learning environment based in active, collaborative, small-group experiences that occur inside and outside of the classroom (Springer, Stanne, & Donovan, 1999, p.22). Research studies have also found small-group learning experiences that occur outside the classroom have a major impact on students' academic success and persistence (Tinto, 1998; Strauss and Volkwein, 2004). Study groups allow students to learn from each other and from their environment by engaging deeply in the learning process. Group participants report that they study more intensely prior to their group meetings than they would if they were working on their own (Light, 2001). These students do not want to disappoint their peers. Light, Singer, and Willet (1990) demonstrated that this experience not only strengthens the higher education experience but also significantly increased the success of college students. Light (2001) demonstrated that students who study in groups earn higher grades.**



## **The Importance of Study Groups**

**Study groups are an important group experience to consider in a higher education setting since these groups provide benefits to students in both the cognitive and affective domains. Petress (2004) found that a study group “enhances student social skills, helps bolster student confidence, and helps students practice assertiveness” (p. 587). Students who are not achieving may find that as they work in groups they become more successful and motivated. Small-group learning translates to greater achievement with students working in small groups persisting more than those who do not participate in group learning (Springer et al, 1999, p. 29). Students in small groups demonstrated more favorable attitudes toward learning and the institution than those who did not engage in group experiences (Springer et al, 1999, p. 30).**

**Gellin (2003) suggests that universities may want to encourage activities outside of the classroom since these activities may provide value through increased critical thinking skills. Study groups allow students to informally learn together outside of the classroom setting. These groups of students could also seek additional co-curricular experiences that could help them excel in a course (Gellin, 2003). All of these activities increase a student's sense of belonging and a commitment to their learning by making complex environments appear more academically supportive (Johnson, Alvarez, et al., 2007).**

**Exploring small-group options with college students, such as study groups, offers an avenue for students to understand how one best learns and how one's brain processes information.**



## **Bringing Brain Research into the College Experience**

**Brain research supports efforts to apply UDL principles to higher education. If students are engaged in the information they are studying, the brain functions at a higher level than when students are passively taking in information. It is not until we have worked with new ideas and concepts that we can process information in the brain. Understanding how the brain functions would allow students to learn strategies to enhance the learning experience.**

**Academic support programs can help students understand how the brain works in one-on-one tutoring sessions or small-group workshops to increase the effectiveness of their study sessions. For instance, as students explore new ideas and new areas of study, they need to understand that a lack of prior knowledge means that they will need to work harder (Zull, 2002, p.92). If they are studying a topic where they have prior knowledge it will be easier to understand and to remember what they are learning. Plus, as students learn new things it is important to make connections to areas that they understand and know. It also makes sense to organize ideas together so that students can remember multiple ideas. Students should build metaphors, analogies, and similes to make connections to prior knowledge (Zull, 2002, p. 129).**

**Students can explore prior knowledge through their writings (Zull, 2002, p. 109). By taking time to self assess papers and other classroom activities, students can come to grips with their challenges and their strengths (Zull, 2002, p. 243). Self evaluation**

**allows students to take ownership of their work. Tutoring sessions and study groups can be structured around self evaluation and reflection to enhance learning at all levels.**

**Strategies to improve executive processing or executive functioning are critical activities for students to understand. The regions of the brain that govern cognitive control and emotional regulation do not completely mature until a person reaches his or her mid-20s, which impacts the executive processing part of the brain (Sparks, 2011). As a result, academic support programs need targeted efforts to help students compensate for the fact that they are still developing these skills. Zull (2002) explains that there are two parts of executive functioning: “1) attending to relevant information, and 2) task management, which requires mentally manipulating the relevant facts in order to achieve a goal” (p.186). Task management is very personal and needs to build on what a student already knows (Zull, 2002, p.188). The process needs to let the student develop his or her own ideas. Often these ideas can be explored by copying or observing what another person does to complete a task. Thus, peer tutoring programs that engage students in study groups focused on understanding executive functioning could quickly move students forward as they explore strategies to manage their lives.**

**By enhancing college students’ understanding of how best to learn, technology will inevitably be identified as a way to encourage student engagement in higher education.**



## **An Exploration of Technology and Virtual Learning as Tools for Group Learning**

**College students have a preference for digital materials and tools, but higher education has resisted their adoption (Moltz, 2010). Today's college students have grown up with computers, the Internet, increasingly "smart" cell phones, and social networking. Information is available when students want it in the format that they prefer at any time of the day or night. College students are pushing postsecondary educational institutions to use technology to meet their learning needs (Levine, 2010). It is up to higher education to make sure that these digital natives who are so comfortable with technology understand how to operate as digital learners. UDL can help us maximize the use of technology as a learning tool.**

**Technological tools can enhance learning by applying UDL principles since these tools can be flexible, allow for deeper learning, and often increase student engagement. Thomas and Brown (2011) explain "information technology has become a participatory medium, giving rise to an environment that is constantly being changed and reshaped by the participation itself" (p.42). Light (2001) found that**

**students write better when they are writing for one another rather than for the instructor. Social networking is all based in sharing information within groups. Blogs, Facebook, Twitter allow students to engage with each other all the time. As a result, it makes sense to tap into the peer-to-peer relationship that social networking targets and sustains.**

**Education can tap into our students' technological comfort and knowledge by including blogs or Facebook study groups in the learning process. A successful blog includes reader comments and links to other blogs or web sites. (Thomas and Brown, 2011) As a result, students engage in social bookmarking of material that interests them and material that can enhance learning for others (Bruff, 2011). Students can establish back channels through Twitter or Facebook that allow students to comment on the type of learning they are experiencing either in their classes or study groups. By sending prompts to their cell phones from their Twitter and Facebook accounts, students find community that is focused on their academics (Bruff, 2011).**

**Blogs and Facebook introduce play into the learning experience, which can support learning. As a work in progress, blogs are always changing as the group, in the form of a collective, interacts with each other. The strength of the group is enhanced through the blog or through the online study group. The link to the personal within a blog also supports engagement and thus impacts the brain and how our students function. Through blogs or conversation streams on Facebook, students are able to explore their personal ideas and test their ideas with the collective. Responses from the collective foster**

engagement and ultimately impact motivation to learn. Thomas and Brown (2011) state that students "are not just learning from each other, they are learning with one another" (p.67). Davidson (2011) explains that "cognitive surplus" in the digital world acknowledges "more than the sum of its parts" as a way of collaborative learning when groups come together online (p.B7). Now it is time for higher education to explore this way of learning.

Bass (2011) explains that we are only beginning to understand how the "social" part of our digital networking can impact the construction of knowledge within our culture. Bass (2011) uses the term *social pedagogies* for teaching and learning that engage students with an "authentic audience" online that goes beyond the teacher and classmates (p.1). Through social pedagogies, higher education can encourage students to build an intellectual community from within the classroom that connects these students to others outside the classroom. Deeper learning can occur through social pedagogies since we are building on our students' desire as people to form communities and to share what they know with a larger community (Bruff, 2011).

Social media will be further enhanced when the UDL lens is applied to the process. UDL allows students to assess how they are engaged in the process, how they access information in multiple ways, and how they explore new and innovative ways to express their learning. Technology will pull UDL naturally into the discussion. Higher education will be further along if we encourage the discussion and lead the way, not trail behind.

## **Summary**

**It is important for educators to stress with students that success in college means working with peers in small groups to create a community of learners based in shared intellectual interests occurring both inside and outside the classroom. An academic support network based in small-group learning experiences, such as study groups, provides many positive benefits for college students. Universities would benefit from promoting small-group experiences, since retention could be positively impacted. Educators need to develop the tools to help students learn how to work with each other. By incorporating UDL principles, peer-to-peer experiences would be fostered, thus enhancing the higher education experience for all students. We need to recommend that students engage with their classmates to form serious and fun study groups. As a result of participating in a quality study group, students will learn more, more quickly, and retain more of what they study (Petress, 2004, p.589). In addition to fostering peers to work together, understanding of how one learns, and utilizing technology to enhance these peer relationships will allow programs and services offered through academic support programs in higher education settings to maximize student engagement. All of these efforts will prove the effectiveness and importance of applying UDL principles both inside and outside the classroom to enhance learning for today's college students. Retention and graduation rates will improve as students become part of communities of learners supporting their academic lives outside the classroom and in the virtual world of the Internet.**

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# **Applying UDL Principles to Design More Inclusive University Teaching**

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## **Introduction**

*Mainstreaming is coming to your neighborhood, Institutions of Higher Education [IHE]!* Recent language changes in funding guidelines for some federal programs evidence that university personnel who face their classes as teachers will be required to teach in ways that are more compatible with how students learn. This is true for students who have been served traditionally by a college or university's disability support offices and for the general student population as well. The requirements apply equally to fully tenured professorial faculty with many years of teaching experience and to graduate teaching fellows about to enter the classroom in their first semester of fellowship responsibility.

This article will note the shift and describe one project's efforts to help faculty make the content of their courses more accessible to students in their classrooms. We will advance a useful way to both consider and frame course modification efforts so faculty who have engaged a redesign process are able to track the results of their planning and design activity.

## **Background**

**A recent language change in federal law has replaced the term “learning disability” with the phrase “print disability.” The shift in language reflects a paradigmatic transformation of one of the central tenets of university-based instruction. Before this change, professors taught and students learned. Teaching and learning, regarded as two distinct processes, did not really seem to be connected in the minds of most university teaching personnel. Teaching was something professors (or first year graduate students) did and took responsibility for. Learning, on the other hand, was the province of students. They were the learners and if they failed to learn, that was their problem to be solved. University teachers behaved as if they had little responsibility for ensuring students learned in their courses. Rather, it was the mission (and mandate) of university based disability support services to construct accommodations for individual students with identified learning challenges, as best they could. “Disability” was seen to be a condition based in the learner; therefore, it was the learner who had to divine the ways to study that better matched their particular learning strengths and weaknesses.**

**The new language has both redefined the nature of the “disability” as well as shifted its location. The disability is now located in the *interchanges* that take place between individual learners and the environment that has been radiated for them in classroom settings. The disability no longer resides in the individual. Rather, what is disabled are processes occurring in the teaching/learning environment. Dramatically now, teachers have to consider and**

**actively avoid designing a learning environment in the college/university classroom that disables the opportunity to learn for individuals and groups of learners.**

**This state of affairs should not really be a surprise to anyone who's had an eye on national trends in public education in the United States. Since 1975, public school education in the United States has been required by law to address wider variations in student abilities in mainstream classroom settings. The Education for All Handicapped Children Act (PL 94-142) required school districts nationwide to provide an individualized educational plan (IEP) to educate children with special needs in the least restrictive environment possible in a regular public school. Before 1974, the education of many of these children had heretofore been relegated to custodial settings outside the public school system or in separate classrooms in public school settings. PL 94-142, a landmark piece of civil rights legislation, made this practice illegal. Given the essential link between public education and the public good in our democracy, is it any wonder that sooner or later, the same press for greater inclusiveness in the regular education process and greater accessibility to challenging academic content would be knocking at the hallowed doors of the higher education system in the United States?**

### **Our Work**

**A small funded project at the University of Vermont (UVM) has developed a model of collaborative consultation to work with faculty who want to become better teachers for all students, but particularly for students with identified disabilities. We meet with volunteer**

faculty on a regular basis and assist them with course design or re-design. Our work is framed by guidelines that have their origin in three principles of universal design for learning (UDL) advanced by the Center for Applied Special Technologies (CAST)<sup>4</sup>. An explanation of each UDL principle will set the context for a description of the consultation model and how we developed and use our metrics to track faculty progress in the process of course modification. Complete explication and many examples of UDL practices are available on the websites of CAST [[www.cast.org](http://www.cast.org)] and the National Center on Universal Design for Learning [[www.udlcenter.org](http://www.udlcenter.org)].

It might be useful to note at this point UVM decided to work with CAST because the model is grounded in the most recent research on the neuroscience of learning and cognitive learning theory. Each UDL principle is associated with a primary network of cognitive functioning and as such, has extensive correlational research support connecting teaching, learning and thinking. In addition, though CAST has been active in public schools over the last three decades, their presence in the post secondary world has been minimal until recently. The grounding of theory in neuroscience research, the comprehensiveness of their “big picture,” and cross disciplinary focus appealed to us as we began consultations in seven schools and colleges of our university.

## **UDL Principles**

### ***Representation***

The learning principle of Representation connects to the Recognition

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<sup>4</sup> *Center for Applied Special Technology, 40 Harvard Mills Square, Suite 3, Wakefield, MA 01880-3233*

**network of brain function. The principle of representation emerges from research that has identified networks in the brain that work together to store information. Memory is not accumulated by an encoding process that involves the direct transfer of external information to internal storage locations. Memory, both as product and process, is far more complicated. The recognition networks in the brain are responsible for encoding and storing incoming sensory data in a variety of memory centers -- some auditory, some visual, some language centered. Knowing this information, the more options used by teachers to represent what they are trying to teach, the more opportunity students will have to know what it is their teachers want them to know, simply because of the many ways memory is represented, constructed, and assembled.**

**Representation, then, refers to the variety of ways teachers might choose to illustrate/ demonstrate/show the content they are trying to convey to their students. Conventionally, faculty tend to use text-heavy props whether they be in technologically facilitated environments like Microsoft Powerpoint or Apple Keynote, or classroom copies of printed documents. UDL methodology would continue the use of text but not exclusively. UDL amplifies the messages of text by adding prompts that include visual, auditory, and model-based information.**

**There are 12 categories of classroom interaction and course design features contained within the principle of representation.**

## ***Action and Expression***

The learning principle of Action and Expression connects to the Strategic network of brain function. The principles of action and expression emerge from research that has identified how students construct and communicate what it is they know about the world. Learning that has meaning for students depends in part upon tapping into what it is that students already know in the form that they already know it. If a student has learned about birch trees from climbing and watching and smelling the wind blow through a single tree in a grove of birches, that student has memory of birch trees considerably different from the student who lives in tropical climes and only knows a birch tree through Frost's poem, or watercolor pictures, or encyclopedic descriptions of a birch tree. If a teacher really wants to see what it is this student knows about birches, it's important to access his/her memories in the way the memories were formed. To have these two students complete a structured response assessment that called for their formal taxonomic knowledge of birch tree plants would be to miss a good deal of what they actually knew about the trees. The strategic networks in the brain are responsible for students taking what they know and making a plan to put that information into a format that answers a question or forms a hypothesis or goes on to use that information to answer allied questions. Therefore, allowing students multiple options so they can express *best* what they know becomes important for them to connect what they know to what a teacher wants them to learn. Permitting multiple modes of expression increases the likelihood that students will be successful in learning what is being asked for by a teacher.

**Action and Expression, then, refer to the variety of ways faculty permit students to show them what they know. Usually, students are asked to demonstrate their knowledge either through speech or written documentation. UDL would suggest that students have multiple options available to them to demonstrate their knowledge.**

**There are 9 categories of classroom interaction and course design contained within the principle of expression and action.**

### ***Engagement***

**Engagement connects to the Affective network of brain function. The principle of engagement emerges from research that has identified how new information becomes attached to the neuronal networks representing what is known so as to attach knowledge structures to old knowledge structures, an essential part of learning anything new. In order for attachment to occur, it is important to interact with the information in ways that cause the learner to process the new bits of information actively. Being actively engaged in the fullness of new learning is not possible when an individual feels threat or discomfort, either with the information itself, the environment in which the information is being encountered, or the individuals with whom the information is being learned. The brain's ability to process new information in creative and spontaneous ways is chemically inhibited when learning settings are unrelentingly stressful. The full exercise of the UDL principle of engagement depends upon how "safe" the affective networks in the brain interpret the learning situation to be. If the affective network**

**"reads" a learning setting as hostile, risky, or highly threatening, learning new information will be severely inhibited. Conversely, if the affective network reads a learning environment as appropriately challenging or calm and peaceful, the frontal cortex is freer to operate in ways that can lead to new ideation. The best engagement occurs when students have time to explore new information with one another in face-to-face or virtual interaction. The active processing of information is what creates new informational neuronal structures.**

**Engagement, then, refers to both the opportunity to emotionally connect with subject matter as well as choices students have to talk and work together, face-to-face or virtually, during or after class meetings. Simply sitting and listening for minutes or hours on end is not the way the brain learns.**

**There are 9 categories of classroom interaction and course design contained within the principle of engagement.**

### **The Consultation Process**

**Faculty harboring an interest in engaging more students in their classroom teaching efforts self-refer to us. When they self-refer, they begin a process that could span a few weeks or several semesters. Common to each consult are pre-consultation assessments, the drafting of an action plan guided by the UDL principles, collaboration meetings to do the work of course modification, and post assessments following the completion of design activities enumerated by the action plan.**

**After being welcomed to the project, the faculty member completes the UDL Self Assessment, a self-report Likert-style assessment tool that gathers information about their familiarity with the 30 categories of classroom interaction and course design elements contained within the three UDL principles. A UDL consulting team, usually two to four staff members, after reviewing the self-assessment, conduct a semi-structured interview with the faculty member. The interview provides additional information about the specific course brought to us by the faculty member, where the course fits in the offerings of the home department, why they seek assistance, their vision for the course generally, and what they hope for in terms of student outcomes. The faculty person will also walk the team through the course syllabus during this first face-to-face meeting.**

**Each member of the consulting team then rates the course practices using principle metrics developed by the program. This paper describes the general application of these metrics. The metrics allow the team to review course documents for the presence and relative strength of each UDL principle, as represented in the course. Information from the self-assessment, the interview, the course syllabus, and course information made available by the faculty member via UVM's web-based instructional course site [BlackBoard] are included in this review. The consultation team then gathers as a whole to construct one overall assessment of the course, arguing through each member's individual assessment until consensus is reached for each category across each of the three UDL principles.**

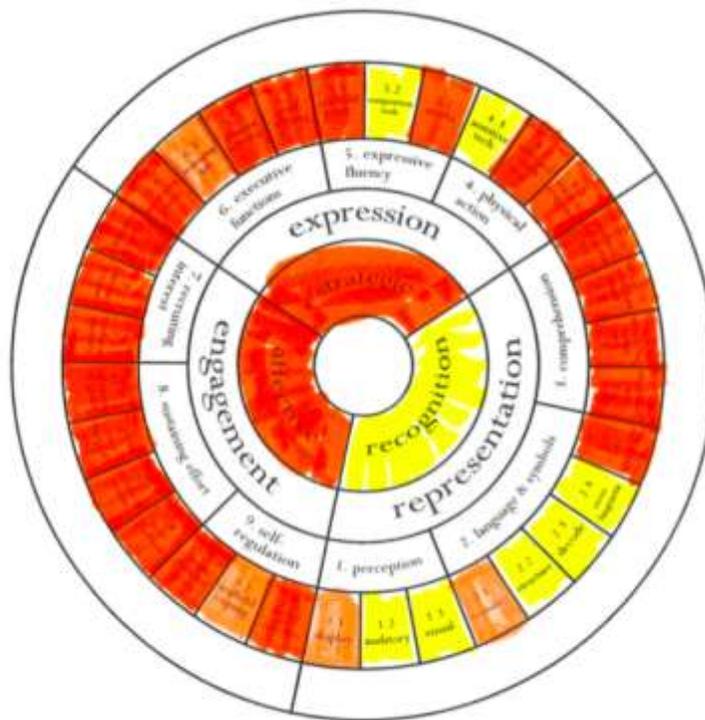
**The team now develops a set of suggested recommendations reflecting each UDL principle that it will bring to the first action plan meeting with the faculty member. At this meeting, the faculty member and the consultation team work together to create an action plan for course modification. In this collaborative process, the group becomes one team, working in concert to modify the course to make learning more accessible to a wider range of students while keeping the instructional demands within the comfort level of the faculty person. The faculty member is always assumed to hold expert knowledge of their course; that knowledge has to be respected by the team members in the collaborative process. Similarly, the strategic knowledge base that guides the redesign process rests with the members of the consultation team. The “jelling” of the team is a signal that the collaboration is working.**

**There may be as many as four meetings to finalize the action plan. When the action plan reaches final form, it lists the course modifications identified by the team, sets responsibilities for who will effect each modification, and fixes a time line for the work to be accomplished. Subsequent planning meetings follow, sometimes with the whole team and sometimes with fewer members of the team. Consultations have ranged from as few as two meetings to as many as 14 meetings depending on the needs laid out by the faculty person and the complexity of the overall task.**

**A consultation is complete when the team decides efforts on the action plan items have concluded. Most consultations conclude with**

the successful completion of 90% or more of the items on an action plan.

Figure One illustrates the graphic feedback document available to consultees. Over the course of a consultation, they receive two of these, one after the initial review of course documents and one at the end of the consultation. The figure has three gradations of color, the darkest indicating highest use of a UDL teaching practice.



*Figure One: UDL Metric Showing Relative Strength of Use of UDL Principles*

This graphic along with other course documents illustrate how the faculty member's teaching has changed over the consultation. The graphic illustrates the degree to which each of the discrete categories of teaching practice within each UDL principles has been

used. Consultees end their consultation knowing specifically how their use of UDL principles and practices has shifted as they have worked to make the learning in their teaching more accessible to their students.

## **Actual Course Changes**

What kinds of course modifications have occurred as a result of our consultations and how do they relate to the UDL principles? The following list is by no means comprehensive but communicates the kinds of design or redesign activities faculty decide to pursue.

It is useful to note here that every consultee redesigned a course syllabus, in part or in whole. The syllabus redesigns have accomplished such changes as identifying, clarifying, and tightening the connections between course goals, objectives, assignments, and outcomes; adding graphic representations that identify the big ideas of a course and showing how they unfold across a semester; adding maps showing the location of the faculty member's office and teaching space; re-formatting to better fit the different organizational logic or a web-based teaching platform (like BlackBoard); adding links that connect to highly detailed descriptions of more complex assignments so as to keep syllabus length reasonable and the assignments clear; removing unnecessary verbiage that accrues over time and clutters efforts to communicate requirements; and adding links to academically focused campus based services for students. In general, each of these syllabus modifications is an adjustment to how faculty *represent* their course material, UDL Principle 1.

## **Other redesign efforts include:**

- *Distributing written agendas for each class meeting so students would know what to expect during class and faculty could keep an eye on the decisions they were making relative to time use and content coverage during class – Representation, Engagement.*
- *Making sure time was saved at the end of each class for a closure activity that involved student input – Expression, Representation.*
- *Allowing students two or three different ways to fulfill an assignment; providing examples of same – Expression and Action.*
- *Making themselves available for regular office hours instead of just having the course assistants be available for student consultation – Representation and Engagement.*
- *Beginning each class with i-Clicker surveys to better locate the beginning point for the day's lecture – Engagement.*
- *Structuring student group work including individual responsibilities for each group member on a web-based wiki and showing several examples of what good group work might look like – Expression and Action, Engagement.*
- *Asking students to write their own personal goals for the course (in addition to the professor's goals) and then making sure there was time to reflect upon student progress with their goals at least twice over the course of the semester – Engagement.*
- *Making sure additional reading material was provided in digital readable formats so students had useful off-line access to course material and so that readings could be processed by assistive technology, such as Braille translation– Representation.*

## **Closing**

**Our collaborative consultations have succeeded. We can see the shifts and changes that occur in the instructional planning efforts of our faculty volunteers. Teaching is far more complex than most people believe. UDL has been shown to be a way of conceptualizing teaching episodes and teaching moves so that students of all cognitive shapes and sizes have access to a broader array of learning opportunities in the college classroom.**



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# **Design Strategies for Inclusive Foreign Language Classrooms**

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## **Abstract:**

**This article argues that many foreign language students with disabilities are better served through inclusive course design than through standard retroactive accommodations, course substitutions, or waivers. The result of an ongoing collaboration with professionals in Disability Services, Project LINC (Learning in Inclusive Classrooms) offers proactive classroom strategies that combine principles of Universal Design for Instruction (Scott, McGuire & Shaw, 2003) with the Standards for Foreign Language Learning (ACTFL, 2006). These strategies, including essential instructional areas of target language use, assessment, group work, and classroom climate, have been researched and piloted at a regional, four-year American institution, leading to more accessible language courses and a healthier completion rate for students with disabilities.**

**The 2007 release of a report by the Modern Language Association, “Foreign Languages and Higher Education: New Structures for a Changed World,” has focused renewed attention on foreign language instruction at the introductory level. Frequently, the report finds, these beginning courses are taught by part-time and temporary instructors, many of whom remain on the fringes of the department. Few have access to ongoing support, pedagogical training, or faculty development. When students with sensory, cognitive or physical disabilities are introduced to this environment, the results can be frustrating for both the student (who may benefit from specific instructional strategies or accommodations) and the instructor (who may be ill-equipped to provide inclusive instruction). In the American foreign language classroom, a perfect storm has been brewing that threatens to engulf these students and instructors. Consider some converging trends that affect the post-secondary foreign language classroom:**

- *About 50% of U.S. colleges require the study of foreign language for graduation (Lewin, 2010)***
- *Approximately 11% of college students now self-disclose as having a disability, a four-fold increase since 1978 (U.S. Government Accountability Office, 2009); and***
- *Non-tenure-track faculty members now make up a majority of the North American higher education faculty (MLA, 2011), while part-time adjunct instructors comprise at least half of the teaching faculty at community colleges (Hodge, 2006/2007).***

**The most prevalent group of college students with disabilities includes those with learning disabilities: students who experience**

**difficulty encoding and decoding in the native language, and those who experience difficulty with auditory processing, phonological processing, and working memory (Leons, E., & Hebert, C. 2002). While learning disabilities comprise the largest portion of diagnosed disabilities, other disabilities may impact foreign language learning, including Attention Deficit/Hyperactivity Disorder, hearing impairments, and articulation difficulties.**

**While a diagnosed disability may impact language learning, students have reported other challenges in the college-level foreign language classroom that are not necessarily related to disabilities. Courses taught primarily in the target language, for instance, can create for the student a heightened sense of anxiety. Other activities typical of a communicative approach to second language learning, such as collaborative exercises, pair work, and high stakes oral assessments, often add to the apprehension. Finally, as Levine (2003) reported, elementary-level students often have inflated expectations for fluency that can lead to both frustration and disappointment.**

**At Longwood University in Virginia, a collaboration was established in 2007 between the Office of Disability Resources and the modern languages program to confront these growing trends and to investigate pedagogical strategies for inclusive foreign language classes. As a starting point, student focus groups composed of students with diagnosed disabilities and those without diagnosed disabilities were conducted to gather initial information about learning experiences and perceived classroom climate in foreign language courses. More in-depth student interviews were also conducted with seven individual students with diverse disabilities.**

Using a structured interview format, students were asked about learning foreign languages both at college and in other environments. Senior foreign language faculty then assisted in developing and evaluating instructional strategies that reflect effective application of the ACTFL Standards for Foreign Language Learning and Universal Design for Instruction (UDI). Finally, a core group of new, part time, and temporary foreign language instructors were actively engaged in the development and piloting of a Foundation Workshop and six Topical Workshops that compose a core professional development curriculum.

Project LINC (Learning in Inclusive Classrooms), a grant-supported demonstration project sponsored by the United States Department of Education, is one response to the trend that pairs under-supported instructors with increasingly diverse students. Designed to bridge the growing gulf between the needs of college students with disabilities and the resources available to the expanding cadre of part-time and temporary foreign language instructors, the Project LINC website offers multiple design strategies for foreign language classrooms: faculty development modules, examples of inclusive teaching, links to disability resources, and other practical materials, including communication tools to promote collaboration between foreign language instructors and disability resources professionals. Many of the original faculty development modules—written by non-tenure-track instructors enrolled in the pilot program—combine strategies of proficiency-based foreign language pedagogy with the principles of Universal Design for Instruction (Scott, McGuire, and Shaw, 2001). UDI has been defined as a specific approach to teaching that involves the proactive design of instructional

**materials, strategies, and assessments to meet the diverse learning needs of students with and without disabilities in postsecondary education.**

**Visitors to the LINC website will find curriculum development modules devoted to key aspects of the foreign language classroom, including group work activities, target language exercises, and inclusive assessment. A “getting started” module introduces specific strategies to be incorporated at the beginning of the semester to create an inclusive classroom. Additionally, the site provides access to context information that explores the pedagogical intersection of UDI and the ACTFL Standards. Project LINC is co-directed by Wade Edwards, Associate Professor of French at Longwood University, and Sally Scott, Director of Disability Resources at the University of Mary Washington. Project LINC may be accessed at [www.longwood.edu/projectlinc](http://www.longwood.edu/projectlinc).**

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**Wade Edwards, PhD**

**Sally Scott, PhD**

## APPEAL:



An NGO for rehabilitation of people with Spinal Injury.

cordially invites you for



**Dr. KETNA MEHTA**  
(author of 'Nano Thoughts on Management')

**MARK INGLIS**  
(author of 'Legs on Everest')

**DO JOIN!**  
for an inspirational conversation on  
'Disability is a state of Mind'  
on 2<sup>nd</sup> December, 2011.  
Time: 5 to 7 p.m.,  
Mehboob Studios,  
100 Hill Road, Bandra West, Mumbai.

Meet you soon.

Regards  
Dr. Ms ketna L. Mehta, Founder, Nira Foundation  
[www.nirafoundation.org](http://www.nirafoundation.org) | Helpline: 97696 80820

**2.**

**Dear Dr. Bhatia,**

**Thanks for your response. I have been thoroughly impressed with your efforts at Design for All and it is institutions like these that can truly help such struggling artisans. The possibilities of bringing out revolutionary designs with the help of the extensive network of designers, professionals and students that are involved with Design for All is limitless.**

**Coming to topic, there are 2 things that this artisan working on Tapioca art requires**

- 1. A different product strategy - Instead of greeting cards, what else can be made (other forms of art work employing Tapioca like wall hanging etc.)**
- 2. A new product design keeping in mind the manufacturability of the product. This would be a digital design and a recommendation for product material(on which the design can be accomplished)**

**And this is exactly where I think this artisan could use your help. I was hoping to seek the help of a philanthropic talented designer who is registered under your organization to come up with the above 2. Or if you could think of someone else who would be very glad to provide noble assistance on the above 2 pointers, I am sure these people will be enormously thankful.**

**Thanks,  
Vignesh**



**Mahatma Gandhi once said that the heart of India lies in villages. It is debatable in what sense he actually meant it, but I am sure we have all felt it at some point in time in our lives. Being in a pretty little village with the river flowing calm, the trees pushing cool breeze on our side, far far away from the hustle and bustle of the city has a serenity to it which is never going to be part of a city life. Is that what he meant by being the heart of India? Perhaps so. But I wish to think differently. India has a good number of cities that are booming with economic activities. But at the same time there are well over 600,000 villages in this country accounting for the livelihood of a vast majority of the population. So to interpret what Gandhi ji might have meant, the economic progress of the country can only be measured by how well people of our villages live or how well our rural economies perform.**

**Our organization Mayjai is one of the many organizations that is deeply interested in bringing rural economies up to speed. Our approach is to use the internet as a medium to reap benefits for the rural population which the urban space has successfully achieved in the last 10 years. Imagine the possibilities – We’d be using naukri.com to fill up job openings in Chacha’s wheat farm, Craigslist to sell Ravi’s cattle and Facebook to create an event about next week’s Village Panchayath.**

**As our pilot initiative Mayjai is now working with rural artisans and small-scale industry entrepreneurs to assist them compete with the bigger corporations. We follow a 5 step process – Find artisans/entrepreneurs in need, Analyze their products with market standards, Propose new designs, Ensure manufacturability, Provide marketing and sales assistance with web as medium. Best part is – Not a single rupee is charged to the artisan. We are not funded by any organization nor are we a charity. We are a social business that borrows some of the concepts of capitalism to fulfill a social cause.**

**In the last months of our operation, we have come to the realization that most of the artisans/entrepreneurs that we have met are badly in need of new designs. What the likes of Ikea or Pottery Barn have achieved by creating a dedicated design team is a practical impossibility for the hardworking rural population. Be it the jute bags maker or the banana fibre lamps maker or the palm leaf products manufacturing cluster, the concept of unique product strategy on innovative designs at an affordable price is virtually inexistent. And that’s just where we need to assist to get their cottage industries up and running.**

**On that note, I would like to make a humble appeal, to one of the finest design communities in India. One of our artisans (just like many others) is badly in need of a design revamp - The Tapioca Greeting Card maker. He is sinking in debt and has a massive pile of unsold stock because of 2 reasons – 1. Greeting cards are being taken over by SMS greetings, E-Mail greetings and the likes of it. 2. The greeting cards that he has traditionally made are nowhere close to competing with the Industry standards. Although, if you do take a look at the picture below you might agree that there is a definite talent behind these Tapioca artisans and all it needs is a different way of presenting it. He needs 2 things – 1. A different product strategy i.e. a proposition for what else can be made other than Greeting Cards that might sell better in the market. 2. A product design and a suggestion for product materials. Please bear in mind that since he is already in deep financial trouble he can hardly afford to invest too much.**

**We would like to invite generous individuals to send in their contribution to [vigneshbabu@mayjai.com](mailto:vigneshbabu@mayjai.com). As a gesture of thanks, we would like to assure the designer that if the product gets made he/she will be the first one to own it – free of cost. Not only that, we will also acknowledge the contributions of the designer on our website (Under construction now) right below the product.**

**We would like to assure you that any contribution to help this artisan will be greatly appreciated by us here at Mayjai, but rather more so by the artisan himself. We encourage you to take this step and help these people who are really in need, because sometimes it is just worth it.**

## BOOK RECEIVED:

McGraw-Hill

# Complete coverage of policies, guidelines, and case studies on all aspects of universal design.

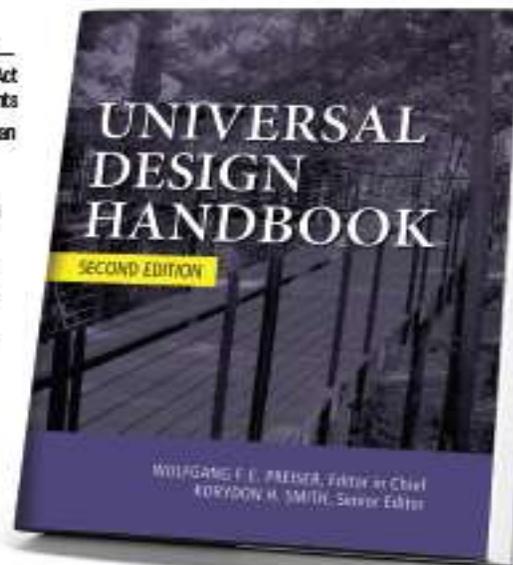
Universal Design is designing environments that truly meet the needs of the people who use them. It ranges from inclusive and non-discriminatory design of products, cars, architecture, and urban environments and infrastructure, all the way to information technology and telecommunications. The new edition of the Universal Design Handbook is a completely updated one-stop professional reference to designing products and facilities for the elderly, disabled, and children, and encompasses vision, touch, cognitive impairment, and hearing as well as motor impairment.

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- Presentation of the full scope of universal design—from urban scale to multimedia
- Examples of standards and guidelines that architects and designers can use to create more universally accessible and usable environments
- Coverage of accommodation issues in case studies on residential, commercial, transportation, and educational facilities

Wolfgang F.E. Preiser is Emeritus Professor of Architecture at the University of Cincinnati. He has published 16 books and more than 130 chapters, articles, and conference papers, and is the recipient of the Progressive Architecture Applied Research Award and Citation and the EDRA Career and Achievement awards.

Korydon H. Smith is an Associate Professor in the Fay Jones School of Architecture at the University of Arkansas. He teaches courses in architectural design and theory, and has received numerous teaching awards.



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## **REVIEW**

### **UNIVERSAL DESIGN HANDBOOK, SECOND EDITION**

**NEW YORK: MCGRAW-HILL, 2010**

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**By Karin Bendixen, [www.bexcom.dk](http://www.bexcom.dk)**

**Editors: Wolfgang F.E. Preiser, Editor-in Chief, Professor Emeritus of Architecture, University of Cincinnati, USA, and Korydon H. Smith, Senior Editor, Associate Professor, Fay Jones School of Architecture, University of Arkansas, USA.**

**Preamble:** When the first edition of the *Universal Design Handbook* (UDH1) was published in 2001 it was a 7 cm thick book—dedicated to Ronald L. Mace, Fellow of the American Institute of Architects and the person who coined the term “Universal Design”. He was also instrumental in creating the “Seven Principles of Universal Design”. The UDH1 was the first international book presenting the broadest aspects of UD with the purpose to encourage the practice of good design.

This second edition has come down in size, so it can be put into a lady's bag and taken on trips. I have had my review copy with me on a trip from Denmark to Germany, to Italy, as well as on several other train rides. The book is a thoroughly updated version of the UDH1 replete with updated and new chapters, and many case study examples. It discusses how to develop media, products, buildings, and infrastructure for the widest range of human needs, preferences, and functioning. The book also addresses the growth and changes in the world, and therefore, implications for the universal design movement.

**Content:** The content is strengthened and more focused on theoretical grounding, as well as practical guidelines on the physical and social roles of design. It presents a plethora of relevant examples of global standards and design solutions, presented by experienced writers from around the world.

The UDH2 targets not only students, architects, designers, planners, design practitioners, therapists, advocates and policy makers, but users/citizens can also draw inspiration.

The case study examples show us the possibilities and solutions of how UD can be approached, including the UD process. A great number of chapters also provides specific tools for analysis and suggestions on how we can tackle the problems and challenges presented by UD, i.e., what it means for planning, strategy and finance, and society.

**Structure:** The book is logically structured and organized. The book contains seven parts: Part 1: Premises and Perspectives; Part 2: Principles, Standards and Guidelines; Part 3: International Perspectives; Part 4: Public Spaces, Private Spaces, Products, and Technologies; Part 5: Education and Research; Part 6: The Past and Future of Universal Design; and, Part 7: Epilogue.

All chapters are tailored to the same pattern that makes the book extremely readable and allows the reader to quickly create a picture of the content in each chapter. The chapters begin with an "Introduction" and ends with a "Conclusion", and a useful bibliography.

62 dedicated and competent persons in different UD fields around the world have contributed to this book. Contributors come from many countries including the United States, United Kingdom, Norway, Germany, France, Italy, Japan, India, Israel and Brazil.

The book both contains updated chapters as well as new chapters. This is particularly remarkable regarding the growth and development of UD in Japan as a result of the International Conference on Universal Design held in Kyoto in 2006. Such a world perspective offers several outstanding opportunities not just to gain an insight into the culture and traditions of different countries, but also to understand the importance of these factors for the progress of UD in different parts of the world, and furthermore, how different countries define UD and the users that they include.

Several of the book's chapters are built around specific examples—an answer to specific needs and challenges to show the world what we are talking about, what it looks like, how it works and how you do it. At the same time, many of the chapters take UD further and focus on major societal and global contexts.

**Defining UD:** It seems like there is a never-ending story to try to define UD, Design for All, Inclusive Design, etc. It seems that for many of the authors there is a need to define UD and they do so in the chapters —this is both a strength and a weakness, and no

wonder it is still difficult for people to promote the UD concept or philosophy because there is no clear definition. The slightly different definitions in the chapters give an interesting insight into different cultures, as well as traditions and starting points in various countries.

There is something for everyone—for the philosophically minded, the socially aware person, as well as the practical person.

**Scope:** The book's broad perspective on UD highlighted in the introduction by Preiser and Smith is important in setting the scope and framework for UD endeavours in the world and many countries.

Since the first edition of the book the world has seen major transformations with implications for design. In less than a decade, the world has experienced a century's worth of change, the scope and diversity of which were unimaginable in 2001. The introduction chapter pinpoints the world changes like the world economy, the worldwide health, catastrophes like hurricanes, and earthquakes, not to mention evolution and progress of technology. Since the UDH1, Apple, the iPhone, Google, and YouTube have become household words, and so has the UN convention on the Rights of Persons with Disabilities. The book points out all these challenges for the future, together with environmental activism, social justice initiatives, indigenous cultures, baby boomers etc. The authors emphasize that we need to bear all these issues in mind when planning to further integrate UD.

It is hard to highlight one chapter as more important than any other. But I would like to point out mention the book's Epilogue (chapter 45) by Rossetti, i.e., one of the new chapters. All readers should start here, especially if they do not know or have any insight into the world of challenges that people with disabilities face in their daily lives: it is something which requires both patience and creativity.

**The Future:** What would be interesting in the third edition of the UDH would be a chapter focusing on UD as business potential, and the possibilities for UD within services. It is not easy to say something critical about this major initiative but if I should—it is that since UD also is visual, it would make the book more inspiring if photos were taken by professional photographers. Furthermore, if they were in colour (although probably not feasible from a cost perspective) one could emphasize and demonstrate that UD can be an aesthetic solution, i.e., that it is an important part of

**communicating the message. I would, for example, like to have seen the colours on page 24.11**

**The style and language is mostly easy to read, though a bigger font would have made the book more reader-friendly.**

**That said, I am impressed by the comprehensive and solid work presented by Wolfgang F.E. Preiser and Korydon H. Smith in the *Universal Design Handbook*, second edition, and thus, it is probably considered to be one of the most sought-after books in the field of Universal Design.**

**Enjoy the reading of the UDH2 in all corners of the world!**

**Year of publication: 2010**

**Price:\$ 125.00**

**Where to buy: Amazon; Barnes & Noble; McGraw-Hill, plus other outlets.**

## NEWS:

1.



A year ago Nathan Bestwick was an industrial design student at the UK's Sheffield Hallam University. Now, after receiving guidance and support from UK-based business incubator **Incub**, the recent ID grad is preparing to launch his own company and self-designed product, the **MillMii**.



The MillMii is a manual pepper grinder embracing the principles of universal design. For those with arthritis, the difficulty of working a manual pepper grinder means they're relegated to using battery-operated ones, which of course leave behind a larger carbon footprint. Bestwick's innovation was to design a manual grinder that can be operated without the user needing to

form a grip: They hold the device between two palms and perform a hand-rubbing motion to create the action.

Bestwick will be launching his kitchenwares company, **Yormii**, in February of 2012 with plans to produce more items already in the works. And in an era when designing a new product for mass production means you'll shortly be getting on a plane to China, Bestwick is keeping things local, relying instead on a Sheffield-based manufacturing facility called The Hog Works.

"It's generally understood that in order to manufacture products you have to source them from the Far East to be able to compete on price," Bestwick *told Housewares Live*. "I put this myth to the test and have found that Yormii is able to match Far Eastern production prices, whilst having the added benefits of greater control over the manufacturing process, the quality of the products we produce, and vastly lower shipping costs with a smaller carbon footprint."

Here's a news clip of Bestwick from earlier this year (sharing airtime with local artisan and jewelry designer Jessica Flinn) describing his plans

2.



The Inclusive Design Research Group is collaborating with the University of Exeter on the project "Co-production of Physical Products and Value Co-creation – Scalability in the Wild" (funded by the UK's Engineering and Physical Sciences Research Council EP/I006885/1)



The research aims to take a significant step towards collective user creativity in designing physical products, concurrently generating added value and superior user experience. It explores co-creation digital technologies and new business models through implementing and evaluating user-based design, production and web service platforms.

The multidisciplinary team (engineering, manufacturing, computer sciences, marketing, and design) are working together to demonstrate the feasibility of engaging a large number of users to support co-design and co-production of physical products through a case study on chocolate gift products which can be made by a flexible chocolate Additive Layer Manufacturing (ChocALM) technique along or together with conventional mass production technology.

Interviews with designers and chocolate-lovers have given the team great insights into why people would like to engage with chocolate design and consumption. These insights are being translated into an interface design which will enable lay people to participate in the design process to co-create value.

The project is led by Dr L Hao at the University of Exeter.



**ADVISOR PROFILE: PROFESSOR HEINZ WOLFF**

Emeritus Professor and Founding Director of the Brunel Institute for Bioengineering, Professor Heinz Wolff is a highly respected scientist and public figure. He passionately believes in the importance of technical and scientific education for young people and is well remembered for his BBC's Great Egg Race. He has been developing medical instrumentation and technology for the improvement of the quality of life for older people (Tech for Ming). Recently he has proposed the Care4Care scheme to address the challenge of care for the older population. He became an advisor of the Inclusive Design Research Group in 2008.

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**UPDATES**

Project 1000 – spending 10% of your time to design for the 90% of the population – has started at the College of Design and Innovation (D&I), Tongji University. Design students took part in the project on a voluntary basis and they will focus on: 1) old street wisdom of everyday life; 2) hands (for doing different types of work); and 3) older people/older city/older handicrafts. The project is initiated by Prof Wenqing Yang, together with the industrial design team at the D&I.

Professor Patrick Jordan gave a seminar at the Human Centred Design Institute at Brunel University on the 22nd Nov, challenging designers to apply their skills in 'non-conventional' areas such as economics and geopolitics.

If you would like to be added to our subscription list, please email [includivedesignresearch@gmail.com](mailto:includivedesignresearch@gmail.com)

We are also now on Facebook, to join our group click [here](#).



**EVENTS**

**DEADLINE FOR ABSTRACT SUBMISSION TO THE ENGINEERING AND PRODUCT DESIGN EDUCATION CONFERENCE 2012 (EAPDE 2012)**

31RD DECEMBER 2012  
[WWW.EPDE.ORG/EPDE12](http://www.epde.org/epde12)

**EXHIBITIONS AT THE DESIGN MUSEUM LONDON**  
[HTTP://DESIGNMUSEUM.ORG](http://designmuseum.org)

- THE WAY WE LIVE NOW: A MAJOR EXHIBITION OF BRITISH COMRADE 16 NOVEMBER – 24 MARCH 2012
- THIS IS DESIGN: TILL 22 JANUARY 2012

INCLUSIVE DESIGN RESEARCH UK (D&I),  
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3.

## **Flipper Universal Big Button Remote Serves Millions of TV-Watching Seniors**



### **Flipper Universal Big Button Remote Serves Millions of TV-Watching Seniors**

Los Angeles, CA (Profitable.com) flipper remote, a company providing an innovative elderly TV remote control for seniors and others with low vision, dementia and other conditions, has launched its new website and is helping people find the perfect gift for the elderly loved ones in their lives.

The simple remote control, which features a functional design and large buttons, makes it easier for users to control their TV, cable and digital TV devices. It is universal and compatible with all major brands.

“This holiday season, give the senior citizen in your life the gift of ease and convenience with our highly functional, giant remote control,” said Dan Pitkow, Founder of Flipper Remote. “With only six buttons, this remote allows people to operate their TV sets more easily and helps them stay connected to the world.”

The Flipper big button remote control is extremely easy to setup and use, and comes preset to standard Motorola cable boxes. The on/off button on the senior remote control works the TV and top-box with its One Touch capabilities, and the channel buttons then work the top-box and the volume buttons control the volume on the TV set. There is also a proprietary Favorite Channel feature, which allows

users to program up to 30 of their favorite channels for easy flipping, eliminating channel overload.

The average person over 65 years old watches about 200 hours of TV per month, which is the most of any age demographic. At a time where a majority of advertising is geared toward younger people, it seems like this very large segment of the population sometimes gets ignored.

“It’s important not to underestimate the importance of television in care giving, as it often is the vital link for seniors to the outside world,” said Pitkow. “With our large button remote control, we’re making it easier for elderly people to watch and enjoy TV. This gives them peace of mind and can bring up positive memories, as well as allow them to stay informed with news and other current events.”

In addition, the parental controls on the remote make it safe for kids. There is also locking setup that is designed to prevent channel reprogramming by accident.

The elder remote control from Flipper Remote uses two AAA batteries (not included) and comes in frustration-free clamshell packaging. It helps to foster independence, reducing care giver time. To learn more, visit <http://www.flipperremote.com>.

4.



**Remarkable 30% Increase of Attendee Participation at  
BODW 2011  
Denmark designated as BODW 2012 Partner Country**

(December 4, 2011 Hong Kong) BODW 2011 comes to a close with a speech by famed Japanese disaster-relief architect Shigeru Ban. Considered one of Time Magazine's 21st Century top innovators, architecture superstar Shigeru Ban is best known for his innovative work with paper. The three-day event was held at the HKCEC in Wanchai, which attracted numerous fans and journalists alike. This year's BODW experienced a stunning 30% increase in number of attendees compared to last year, marking it as record high for BODW for the past nine years. Gracing the occasion was guest of honour, The Honourable Mr. Donald Tsang Yam-kuen, Chief Executive of the HKSAR, and famed German architect Dieter Rams. It was announced that Denmark will be the next partner country.

The BODW 2011 is in its 9<sup>th</sup> year running, with past partner countries including Sweden, the UK, Italy, The Netherlands, France, Japan, etc. This year's partner was automobile and engineering powerhouse: Germany. HKDC chairman Mr. Victor Lo said in a speech today that he appreciates the participation by Germany this year, including some 60 distinguished designers who spoke at the forum. Due to the success of this year's BODW, Mr. Victor Lo is looking forward to another spectacular event in 2012, with Denmark as the designated partner country.

The HKSAR government has always been supportive of the arts and innovation, especially in the design field. The Chief Executive announced that 2012 will be the 'Hong Kong Design Year', with a accompanying theme 'A City Driven by Design'. The year will be filled with design-centric activities, exhibitions and events.

The three-day event saw some 60 distinguished designers from around the world landing in Hong Kong. They were from various sectors, including interior design, branding, commerce, communications, the arts and industrial design. The speeches were well received, especially the opening speech by famed German architect Dieter Rams. Not only did the forum serve as an exchange

platform for designers, it was also an excellent opportunity for media outlets to conduct invaluable interviews with the guests.

'Heritage & Design' was a new addition to this year's event, which featured speakers from both sides of the straits. They showcased their appreciation of their Chinese heritage. The recurring theme explored the issues faced during a time where the rise Western influences seem inevitable. Chinese culture, it was concluded, was certainly worth preserving and embraced by all.

The HKDC Annual Awards Gala took place on December 2<sup>nd</sup>, recognizing several designers for their outstanding achievements. Among some of the prestigious design awards given was the "2011 DFA Lifetime Achievement Award".

The BODW 2011 has received continued support from the HKSAR Government. With the announcement of next year's partner country, Denmark, it is certain that it will bring about more positive changes in the design and business communities.

#### **BODW Background**

BODW is Asia's leading annual event on design, innovation and branding. Since 2002, it has been organised by the Hong Kong Design Centre. Bringing the best of the global design world to Hong Kong, the week-long event encourages businesses to unleash the power of design by focusing on the vital relationship and complex interplay between design and business.

It features a series of exhibitions, forums, outreach programmes and networking opportunities for designers, business leaders, educators, SMEs and the public to exchange ideas and address a wide array of 21st Century challenges.

[www.bodw.com](http://www.bodw.com)

#### **About Hong Kong Design Centre**

Hong Kong Design Centre is a publicly funded, non-profit organisation established in 2001 with the support of the design industry. Design for Society is a major undertaking of Hong Kong Design Centre in (i) promoting and celebrating design excellence, (ii) championing strategic and wider use of design for creating business added value and community benefits; and (iii) educating the professions and the community to be resourceful and champions

for sustained developments through design and innovation.

The long-term success of HKDC requires continued feedback and unflinching support from the community and different professions across various design fields, education, commercial, voluntary and public sectors.

[www.hkdesigncentre.org](http://www.hkdesigncentre.org)

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5.

#### DFA Award 2011 Grand Award



Name of Design	Designers / Clients
1. Brand Design and Brand Concept of Green-In-Hand Foodbank	Green-In-Hand Foodbank Co., Ltd.
2. OLIVE	NOSIGNER
3. Musachino Art University Museum and	Sou Fujimoto Architects
4. Library	YOSHIAKI OYABU ARCHITECTS
5. OPEN-ARCHITECTURE PROJECT	Shigeru Ban Architects + Voluntary Architects'
6. Paper Partition System	SHANG XIA
7. SHANG XIA	CoDesign Ltd
8. So...Soap!	SLOW (Sustainable Lifestyle and Organic Work Ltd)
9. Tokyo Fiber Senseware	Nippon Design Center, Inc.
10. Truss Me	Sangaru Design Objects Pvt. Ltd.
Yusuhara Wooden Bridge Museum	Kengo Kuma & Associates

### DFA Award 2011 Special Award for Culture



Name of Design	Designers / Clients
1. Brand Design and Brand Concept of Green-In-Hand Foodbank	Green-In-Hand Foodbank Co., Ltd.

### DFA Award 2011 Special Award for Sustainability



Name of Design	Designers / Clients
----------------	---------------------

- |   |                                  |
|---|----------------------------------|
| 1. Brand Design and Brand Concept of Green-In-Hand Foodbank | Green-In-Hand Foodbank Co., Ltd. |
|---|----------------------------------|

### DFA Award 2011 Special Award for Technology



Name of Design	Designers / Clients
----------------	---------------------

- |          |          |
|----------|----------|
| 1. OLIVE | NOSIGNER |
|----------|----------|

### DFA Category Award Winners

#### DFA Gold Award





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	Name of Design	Designers / Clients
1.	anothermountainman: what's next 30x30	84000 Communications Limited
2.	We All Live in the Forbbiden City	Design & Cultural Studies Workshop/ Robert H.N. Ho Family Foundation
3.	Together Rice	Green-In-Hand Foodbank Co., Ltd.
4.	Book on Dress	MASAMI DESIGN Co.,ltd
5.	Big Business 3	SenseTeam
6.	Paper Partition System	Shigeru Ban Architects + Voluntary Architects'
7.	Ring Around A Tree	Network TEZUKA ARCHITECTS
8.	Truss Me	Sangaru Design Objects Pvt. Ltd.
9.	SETU	Herman Miller, Inc
10.	Mac mini	APPLE, INC.
11.	PRYDE GROUP BICYCLE DESIGN DEVELOPMENT	BMW Group DesignworksUSA

### DFA Silver Award



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	Name of Design	Designers / Clients
1.	ISSEY MIYAKE O Watch	Seiko Instruments Inc
2.	Lo Res Project	united nude
3.	SHANG XIA	SHANG XIA
4.	The Night Market	Latitude Design Studio
5.	Micro-Symphony	XEX GRP.
6.	OLIVE	NOSIGNER
7.	Ohmine Sake	Stockholm Design Lab
8.	SHIWAZA	Peace Graphics
9.	Choi! Touchwood!	Jieni Liew   Alvin Ng   Jesvin Yeo
10.	We All Live in the Forbbiden City	Design & Cultural Studies Workshop/ Robert H.N. Ho Family Foundation
11.	Poster for the Festival Bo:m 2011	Sulki and Min
12.	"Yick Chee Game" Heiwa Calendar 2011	Heiwa Paper Co., (H.K.) Ltd.
13.	FINNISH-CHINESE VISUAL DICTIONARY	SH type/ Pan Jianfeng
14.	Taiwan Designers' Week 2010	NEW ADVERTISING CO., LTD
15.	House OM	Sou Fujimoto Architects
16.	OPEN-ARCHITECTURE PROJECT	YOSHIAKI OYABU ARCHITECTS
17.	Kyoto Silk	Hiroki Fukiage Keiichi Hayashi Architect and KYOTOSILK&Co.,Ltd.
18.	Sugamo Shinkin Bank/ Shimura Branch	emmanuelle moureaux architecture + design
19.	Embo Hospital (Foxconn Technology Group)	Long Tsai Corporation
20.	Niseko Look Out Café	YTL Hotels
21.	eda	emmanuelle moureaux architecture + design
22	Yusuhara Wooden Bridge Museum	Kengo Kuma & Associates
.	Abundance Airtight Canister	JIA Inc.
23.	METAPHYS gekka	KateChungDesign
24.	ARRAS	hers design inc.
25.	Philips Par20 LED Lamp	Herman Miller, Inc
26.	13-inch MacBook Air	Philips Design
27.	iPad 2 with iPad Smart Cover	APPLE, INC.
28.	Apple TV	APPLE, INC.
29.		APPLE, INC.

## DFA Bronze Award



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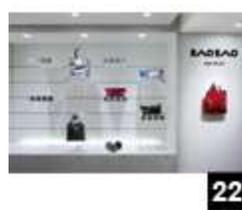
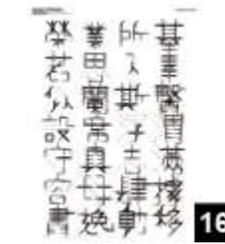
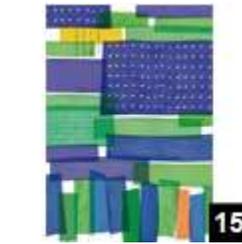
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Name of Design	Designers / Clients
1. Silhouette SPX Art	Silhouette International Schmied AG
2. "Memories of King Kowloon" Exhibition	Swire Island East
3. So...Soap!	CoDesign Ltd
4. The Vietnam Woods	SLOW (Sustainable Lifestyle and Organic Work Ltd)
5. Green-In-Hand Foodbank Website	Tommy Li Design Workshop Limited
6. 06. JR East Water Acure Vending Machine	Green-In-Hand Foodbank Co., Ltd.
7. The Sphere of balancity, German Pavilion EXPO 2010	Eight Inc. Design Singapore Pte Ltd
8. A Wisp of Tea	Milla & Partner
9. Wasanbon - Umi-no-uta	Linshaobin design
10. Design 360° - Concept & Design Magazine No.30-34	Kuroyanagi Jun + Mitaniseitou Hanesanuki Honpo
11. SALIGIA	MILKXHAKE
12. Singapore Architect cover designs	Kun Shan University
13. SAVE ME	The Press Room
14. The 6th Chinese Character Festival	Lin Horng-Jer
15. The Color of Taiwan Democracy	Leslie Chan Design Co., Ltd.
16. NONE STROKES WORDS	Leslie Chan Design Co., Ltd.
17. Polytrade Diary 2010	Lee, Chang Pei
18. Social Energy	Eric Chan Design Co. Ltd.
19. House H	SenseTeam
20. InBetween House	Sou Fujimoto Architects
21. Sumikiri-house	Koji Tsutsui Architect & Associates
22. BAO BAO ISSEY MIYAKE GINZA	y+M design office Co.
23. Tami Chan Maison	MOMENT Inc.
	EMILY CHU ARCHITECTS

- 24. SOLO
- 25. Amanfayun, Hangzhou China
- 26. Banyan Tree Al Wadi, Ras Al Khaimah, UAE
- 27. Hilton Pattaya - Lobby, Bar, and Restaurants
- 28. Musachino Art University Museum and
- 29. LibraryTANADA piece gallery
- 30. The sustainable design based on the POE (Post-Occupancy Evaluation) in Nanting Village of Guangzhou
- 31. Cybertecture Mirror
- 32. Mongolian Bao
- 33. SLIM FOLDING CHAIR
- 34. TAVOLINO
- 35. Cuticle Nipper TOKI
- 36. Premium Notebook Series 9
- 37. Diavel
- 38. Egretta
- 39. iPod shuffle

RAD  
 Amanresorts  
 Banyan Tree, Architrave Design and Planning  
 Department of ARCHITECTURE Co.,Ltd.  
 Sou Fujimoto Architects  
 GENETO  
 Guangzhou Academy of Fine Arts

James Law Cybertecture (Mirror) Limited  
 Neri & Hu Design and Research Office  
 Shiang Ye Industrial Co., Ltd  
 JOODESIGN  
 SUWADA Blacksmith Works, Inc.  
 Samsung Electronics Co., Ltd.  
 Ducati Motor Holding  
 ARYEN MOTOR PROGRESSIVE CO.,LTD  
 APPLE, INC.

**DFA Award 2011 Merits Winners**



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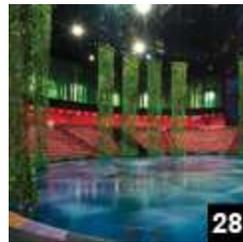
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	Name of Design	Designers / Clients
1.	TAG HEUER – Panorama Automatic Night	LOGO Group
2.	Vision	MEMES CREATIVE PARTNERSHIP
3.	BRANDING PROJECT OF GIANT MODELER	MILKXHAKE
4.	Design 360° Shop - Visual Identity	CROSSPOINT
5.	Too Cool For School	Cherrypicks
6.	DiscoverHK.City Walks	Studio Roosegaarde
7.	'Dune'	Filmages Ltd.
8.	The Bold and the Beautiful	Kuroyanagi Jun + Ayakiku Shuzo Co.,Ltd.
9.	Ayakiku - special-pure-rice	HOHOENGINE CO., LTD.
10.	Taiwan Centennial Blessing Tea Gift Set	Blue Beetle Design
11.	VICCAL SKINCARE PACKAGING	Tommy Li Design Workshop Limited
12.	Ying Kee Tea House	Hanqingtang Design
13.	A Hai	Joaquim Cheong Design
14.	The 7th Macao Design Biennial - "Archive"	Kuokwai Cheong
15.	Wanchai Design x Culture Navigator	Information Design Lab, School of Design, Hong Kong Polytechnic University
16.	Antalis - Everything Has Two Sides Poster	Eric Chan Design Co. Ltd.
17.	Design at the edges	Leslie Chan Design Co., Ltd.
18.	Levi's Hong Kong – Soundwash	TBWA\TEQUILA\HK
19.	Perfect Homing	BITE: design
20.	Miyahara House	MAD
21.	SWITCH apartment	YUKO SHIBATA OFFICE
22.	Nature Factory	SUPPOSE DESIGN OFFICE
23.	ROLLS	sinato Inc.
24.	The Bridge 8	Lifestyle Centre Holdings Limited
25.	ACTS Rednaxela, Hong Kong	EDGE Design Institute Ltd.
26.	Fairmont Peace Hotel Shanghai	HBA
27.	Four Seasons Hotel Hangzhou at West Lake	Bilkey Llinas Design
28.	Hotel ICON	Hotel ICON
29.	Dancing Water Theater at City of Dreams	Pei Partnership Architects LLP
30.	Stadium MRT Station, Singapore	Land Transport Authority, Singapore
31.	TAIPING BRIDGE RENOVATION	John Lin / The University of Hong Kong
32.	Yokohama Community Cycle office	kbysknhr design lab. / UNITY DESIGN / seats
33.	Grow Range of Kitset Lightshades	David Trubridge Design Ltd.
34.	HEART	Smile Park
35.	Speed Collection	Plussense Co.,Ltd.

- Wok and Utensils
- 36.
  37. Yoke Yake
  38. i2i Collaborative chair
  39. Manifesto
  40. SAYL
  41. EVOKO ROOM MANAGER
  42. IPOD NANO  
IPOD TOUCH

Office for Product Design  
Pioneer Industrial Corporation Limited  
Steelcase Asia Pacific  
Steelcase Asia Pacific  
Herman Miller, Inc  
NO PICNIC AB  
APPLE, INC.  
APPLE, INC.

**6.**

## **Breaking down barriers with the right attitude**

**KITCHENER – Not every barrier to access is visible.**

**It's easy to see the "one-step" into stores and restaurants that stop wheelchairs, walkers and strollers alike in their tracks.**

**But as Canada's population ages and Ontario approaches the first significant deadline outlined by the Accessibility for Ontarians with Disabilities Act, universal accessibility is becoming a standard of planning and design. Yet there's still much work to be done.**

**Speakers at a forum Saturday in Kitchener to mark the United Nations' International Day of Persons with Disabilities said the biggest barriers are often the hardest to see.**

**"It's (about) how simple improvements can make life better for everyone," said Gavin Grimson, who has progressive multiple sclerosis but has also working community health planning for decades. He is the former executive director of the Waterloo Region District Health Council.**

**He spoke during the forum, titled "Aging with and into Disability: Leading the Way to Inclusive Community Planning and Development." It highlighted that more accessible design helps everyone from the young mother pushing a stroller to the grandmother with a walker.**

**Grimson said the dropped curbs and ground-level doors in Belmont Village and Kitchener's renovated King Street East are examples of how planning has turned into good practice.**

**"There's progress everywhere you go," he said. "But there's still so much progress that needs to be made."**

**"How can you be part of the community if the community doesn't plan for you?"**

**And attitudinal barriers can be even harder to spot than a door frame that's just too narrow for a bulky electric wheelchair.**

**"The biggest one (barrier) I think is attitude," said Brad Ullner, a member of the Social Planning Council Kitchener-Waterloo that organized Saturday's forum and luncheon.**

**He said legislation like the Accessibility for Ontarians with Disabilities Act is helpful, but it doesn't necessarily address attitudinal barriers.**

**Ullner has a master's degree in political science, but he's had difficulty finding a job that's willing to accommodate his needs. He has lived experience with disability — an evolution of the terminology that seeks to identify the person's connection to the community without labelling him based on his disability.**

**“It’s a universal design, but it’s not objects, it’s not systems or anything .... It’s about acknowledging that everybody, no matter their differences, is part of the community,” and should be enabled to contribute to it through gainful employment, Ullner said.**

**For Hazel Courtney, it took losing her sight to see how difficult finding a job can be for a person with disabilities. When Courtney became legally blind, even though she had a university degree in social services, she couldn’t find a job that didn’t require a driver’s license.**

**She eventually went back to school at 61 and, tens years later, now works as an employment counsellor. But she said the situation hasn’t changed. The employment rate for persons with disabilities in Ontario is over 50 per cent. And Courtney said only 15 per cent of that population has full-time jobs.**

**“They’re not given much chance to prove their ability,” said Courtney. “Employers and all levels of government need to step up to the plate and fix this abysmal situation.”**

**7.**

## **2012 to become Hong Kong Design Year Government Injects \$50 Million to Foster International Design Hub**

**The Chief Executive of the Hong Kong SAR, Mr. Donald Tsang, announced in his latest Policy Address that 2012 will be designated as ‘Hong Kong Design Year’. The government has also allocated \$50 million HKD for year 2012 to support the 30 plus design-related activities and programs with the goal of showing the public the importance of design in one’s community, society and environment.**

**2012, designated as Hong Kong Design Year, will be consisted of a continuous plan of creative development. It serves to promote and foster Hong Kong's creative industries, ultimately striving to become Asia's design hub. In 2009, the creative and cultural industries were worth 60 billion Hong Kong dollars, which raised Hong Kong's GDP by 4.2%.**

**The Hong Kong Design Year (HKDY) initiative will advocate design as a driving force to turn Hong Kong into a world class creative city. With the slogan, "A City Driven by Design," the year-long programme includes a wide array of signature events and celebration activities to raise public awareness of the economic, social and environmental values of design. A special brand identity has been created for the Hong Kong Design Year to earmark the related events held in 2012. Founder of Create Hong Kong stated that "This year's logo is depicted by parenthesis, which implies that design is inclusive".**

**HKDY 2012 will be presented by CreateHK of the HKSAR Government and organized by the Hong Kong Design Centre (HKDC). Strategic partners include Hong Kong Trade Development Council and Hong Kong Tourism Board. Many other organisations will also be supporting the initiative. All parties will work jointly to build the design and design thinking capacity of Hong Kong and to propel the development of Hong Kong as a world class design city.**

**"Dr Victor Lo, Chairman of Hong Kong Design Centre stated, "2012 is a very special year, as it marks Hong Kong Design Centre's 10 year anniversary as well as the 15 year mark since the handover of Hong Kong to China. Thus 2012, labelled as Hong Kong Design Year, will be filled with a plethora of design-related activities, which serve to reinforce the existing and upcoming creative industries. 2012 HKDY is presenting us with an opportunity to live a better lifestyle with the implementation of design in our daily lives".**

**"The year 2012 will be filled with a series of local, regional and international design-related events, including Hong Kong's first ever Design Fest Asia in December. Other remarkable events include *Fashion Visionaries*, *Toy Museum Show Case* and *HKDA Global Design Awards 2011 Presentation Ceremony cum***

***Exhibition"***, said Dr. Edmund Lee, Executive Director, Hong Kong Design Centre.

**HKDY 2012 will target a wide range of audiences local and international, including members of the public (especially the youth), businesses, design and other professionals and tourists.**

**Throughout the year, a series of activities and programmes will be launched by different supporting organizations including HKSAR government, design related associations, local universities, business and professional associations, and also the international community. Events of HKDY aim at achieving 4 goals: Nurturing Talents, Creating Value, Bettering Life and Celebrating Excellence.**

**Nurturing Talents: Design plays a crucial role in cultivating a new generation of creative talent for Hong Kong. Design thinking is a problem solving as well as opportunity finding skill. It is a multi-disciplinary process involving not just designers but also other professions, from engineers, marketers, business strategists to humanities experts.**

**Creating Value: Design creates value for business, going far beyond aesthetic appeal. Design enhances the sustainability, reliability, quality, productivity and the value of the product/service offerings. It helps companies build their brands and stand out in the marketplace.**

**Bettering Life: Design improves quality of life by providing products and services more attuned to people's needs and minimizes the impact on the environment. Design also provides innovative solutions to societal challenges, e.g. education, housing and transport and the needs for elderly, underprivileged, youth and minority groups.**

**Celebrating Excellence: Hong Kong is a hub for design talents in Asia. The Hong Kong Design Year will celebrate Hong Kong's design excellence and achievements and showcase the best-in-class design in the world.**

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# IDR: DESIGN OUT HIV

WWW.INCLUSIVEDESIGNRESEARCH.ORG

DEC 9 2011

ISSUE 24

THE ONLY IMPORTANT THING ABOUT DESIGN IS HOW IT RELATES TO PEOPLE.  
— VICTOR PAPANIEK

Approximately 33.3 million people are living with Human Immunodeficiency Virus (HIV) AIDS worldwide. 90% of the 370,000 annual infections in children are caused by mother-to-child transmission (MTCT) during pregnancy, breastfeeding and childbirth. 40% of these MTCT cases occur through breastfeeding.

Emily Riggs at Brunel Design is working on her major project, aiming to reduce the risk of transmission of the HIV from mother to child through breastfeeding.



The project looks in particular into ways of reducing this risk in sub-Saharan Africa, where there is a high prevalence of HIV and accesses to resources such as electricity are limited. Solutions such as using Antiretroviral (ARV, a drug to suppress the HIV virus and stop the progression of HIV disease) in a NippleShield are under development (JustMilk, 2011), but Emily will be looking into developing a solution that does not require drugs due to their costs, availability and accessibility. She is looking into low-tech processes such as flash heating (e.g. heating a jar containing expressed breast milk in a pan of boiling water) as research proves that the HIV can be deactivated once the breast milk has been at the temperature of 72°C for 15 seconds.

The project is currently looking into:

- Efficient and effective ways of heating the water.
- Ways of indicating that the breast milk has been at the temperature of 72°C for 15 seconds.
- Ways to ensure that the user is clearly educated in how to use the system, either by making the use intuitive or by providing a clear set of visual instructions that can be understood even if the user is illiterate.
- Ways for the mother to express breast milk while carrying out other tasks.
- Ways of storing the milk once expressed and treated so that the mother can save the milk for a later feed.
- Ways of making the product transportable.
- Ways of making the product inclusive and non-stigmatizing.

The working prototype will be ready in April and will be exhibited in Made in Brunel in June 2012. For more information about the project, please contact [emilykriggs@gmail.com](mailto:emilykriggs@gmail.com) JustMilk (2011) <http://justmilk.org/>



## MEMBER PROFILE MISS YIQIAN GUO

Yiqian is a postgraduate student at the College of Design and Innovation at Tongji University. Trained in industrial design, she is interested in how products and services can be designed to improve people's life. She has participated in the Project 1000 in which designers are challenged to focus on people they often tend to ignore in a commercial context. Recently she has completed a preliminary literature survey on inclusive design in China, and she found that the current practice was very much on physical access (barrier-free design). She believes there is a great potential for inclusive design in the future.

INCLUSIVE DESIGN RESEARCH CHINA

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## UPDATES

Inclusive Design course at Tongji University

Between late December 2011 and early January 2012, first-year postgraduate students at the College of Design and Innovation, Tongji University will have the chance to attend an intensive module on Inclusive design.

The module will cover:

- History, theory and principles of inclusive design
- The process, methods and tools for inclusive design
- User data and design exclusion
- Inclusive design case studies
- The students will join the debate on inclusive design for China, and they will conduct a design research project in collaboration with design partners from the local community.

If you would like to be added to our subscription list, please email

[inclusiveDesignresearch@gmail.com](mailto:inclusiveDesignresearch@gmail.com)

We are also now on Facebook, to join our group click [here](#).



## EVENTS

THE AGEING SYMPOSIUM

15TH FEBRUARY 2012, BRUNEL UNIVERSITY

THE BRUNEL INSTITUTE FOR AGEING STUDIES (BIAS) WILL ORGANISE A SYMPOSIUM ON AGEING IN FEBRUARY, FOCUSING ON SUPPORTING EARLY CAREER RESEARCHERS IN THE AGEING RESEARCH FIELD.

PLEASE CONTACT [indian.avery@brunel.ac.uk](mailto:indian.avery@brunel.ac.uk) BY FRIDAY 27TH OF JANUARY TO RESERVE A SPACE FOR THE SYMPOSIUM.

INCLUSIVE DESIGN RESEARCH UK (IARIU), SCHOOL OF ENGINEERING AND DESIGN, BRUNEL UNIVERSITY, UOXFORD LANE 37H

9.

## **Four new NIDs to come up**

**Industry and traditional design are closing ranks in India, with plans to set up four new National Institutes of Design (NIDs) to meet the growing need for industrial designers, especially at the regional level. The commerce, industry and textiles ministry will announce NIDs in Assam, Andhra Pradesh, Madhya Pradesh and Haryana to push the growth of regional design and train more youngsters as designers, said Pradyumna Vyas, director of the National School of Design in Ahmedabad.**

**"We produce nearly 400,000 engineers and 100,000 managers every year. In contrast, we hardly produce 1,000 industrial designers to address the growing need to make design competitive," Vyas told IANS at the CII-NID Design Summit Dec 8-9 in the capital.**

**The new NIDs are expected to become operational in the next five years. "The new NIDs will cater to regional requirements - and combine traditions with industry to meet global needs," he added.**

**"Sustainable design that carries forward a balanced and aesthetic equilibrium between our social, economic and environmental structures is where design innovation in current time rests," Vyas said.**

**The Twelfth Five-Year plan will give a boost to the process of commercialising indigenous designs from regions and make it commercially viable.**

**Designer Nachiket Thakur is one such "dual knight" of design who exemplifies this inclusive trend in new Indian design.**

**As founder-president of Pune-based Vishwa Bamboo, he promotes bamboo craft from the Satara, Sangli, Kolhapur and Nasik regions of Maharashtra as industrial products - for corporate and lifestyle use.**

**Thakur has created 150 bamboo and clay products, of which 15 are mass manufactured on shop-floors. The craftspeople provide the design and a tech team assembles them in the works.**

**He also heads the design at Mahindra Composites where he innovates on user-friendly hardware design.**

**"Traditional and industrial designs have been seeing a parallel growth of late. One has dexterity while the other has skill - but strangely, both are learning from each other. Craftspeople are realising the need for standardisation of designs and their crafts for mass use," Thakur told IANS.**

**Explaining why traditional crafts were facing a growth block, he said: "Craftspeople are generally happy with their work so long as they get a good price for it."**

**"They do not look beyond the scope of the ordinary - and livelihoods. People like me who are working in the crafts sector educate them to customise the products - by making them industrially manufacturable to ensure that the quality of the first product and the 1,000th product is the same," he said.**

**Man-made crafts cannot be mass produced without qualitative variations, Thakur pointed out.**

**The design environment in India is also changing - as grassroots, traditional and industrial design try to meet on common ground to set up new linkages.**

**"An entire eco-system for product development is taking roots in India with various entities (like design, production, innovation and resources) coming together to create one Indian design," Sunil Sudhakaran, the owner of Bangalore-based Icarus Design, told IANS.**

**The design incubation centres - education and support centres for design innovators and entrepreneurs - are an example, he said.**

**The NS Raghavan design and product incubation cell at the Indian Institute of Management (IIM) in Bangalore helps young innovators and designer-entrepreneurs from the grassroots develop viable start-ups with mentoring, marketing support and resource generation, Sudhakaran said.**

**"Several engineering colleges across India have set up incubation centres to educate and guide innovators," he said.**

**The Design Clinic - a micro-level design intervention programme between the National Institute of Design and the commerce, industry and textiles ministry - has been helping micro, medium and small-scale industries to increase their competitiveness by exposing entrepreneurs to design-related thinking, intervention and application since February 2010.**

**The scheme has a budget of Rs.73.58 crore (\$14 million), of which Rs.49.08 crore is government contribution, a ministry spokesperson said.**

**The government has turned the spotlight on design education with aesthetics and innovations.**

**The National Design Policy version of 2011 is encouraging the creation of departments of design in all the Indian Institutes of Technology (IITs), National Institutes of Technology (NITs) as well as private colleges.**

**Under its objectives for the coming year, the policy is stressing on teaching of design in vocational, primary and secondary schools oriented to the needs of small-scale and cottage industries - under the theme "Designed in India, Made For the World" to integrate India's rich traditions, ethnicity with contemporary innovative processes.**

## **10. red dot concept awards night**

***Designers have strutted along the catwalk in Singapore to collect their red dot: concept awards***



**The concept awards showcase design concepts developed to a high professional standard.**

**Ideas and prototypes from all over the world, were entered this year - including entries from product manufacturers and design studios.**

**"The concept awards open minds, unlock the power of imagination, and provide new impulses," says Peter Zec, president of the red dot design award.**



**The concept awards give designers the opportunity to showcase their latest research and futuristic ideas.**

**This year there were three nominees for the red dot: luminary, which is the highest honour given in the concept awards program.**



The nominees were - the Frida Concept Robot by ABB from Sweden, the Wildfire Truck Concept by Morita Holdings Corporation from Japan, and Microbial Home by Philips Design, Netherlands. The Microbial Home concept won overall.

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## **Disabled-friendly building rules to be extended**

Rules for making public buildings disabled-friendly will soon be extended across the State through a Government Order, said P R Sampath, Commissioner for the Welfare of the Differently Abled. These rules are now incorporated in Chennai alone, by the Chennai Metropolitan Development Authority, he explained.

Sampath inaugurated a two-day workshop on 'Inclusive Cities - Accessibility and Universal Design', organised by the Department of Planning, School of Architecture and Planning, Anna University, and CBM South Asia Regional Office on Friday.

In 2003, the State government passed an order inserting Rule 28 A in the Development Control Rules of the Town and Country Planning Act of 1971, including provisions of disabled persons.

Accordingly, public buildings with more than two floors should have a ramp with a specifically given slope level, a lift large enough to accommodate a wheel-chair bound person, 90 cm high handrail in staircases, special toilets in the ground floor and exclusive parking space for physically handicapped (atleast two spots) persons. "These rules will have to be enforced for planning permits and buildings not incorporating them will not be issued completion certificates, which is important to obtain power and sewer

connections," he said. Now, these rules would also be enforced in the municipalities, town panchayats and village panchayats. A GO will be issued and the CM had agreed for the same, he said.

12.

Dear Colleagues,

Announcing the first of two issues of Design Philosophy Papers on the theme of 'Beyond Progressive Design'. Part 2 to be published late February/early March.

Design Philosophy Papers 3/2011  
[http://desphilosophy.com/dpp/dpp\\_journal/journal.html](http://desphilosophy.com/dpp/dpp_journal/journal.html)

Sean Donahue, Rama Gheerawo, Anne-Marie Willis, Editorial: Beyond Progressive Design

Shana Agid, 'How do we design something transition people from a system that doesn't want to let them go?' Social design and its political contexts

Matt Kiem, Designing the social, and the politics of social innovation

Kenton Card, Democratic social architecture or experimentation on the poor? Ethnographic snapshots

Karen Freire, Gustavo Borba, Luisa Diebold, Participatory design as an approach to social innovation

Vera Damazio and Gabriel Leitão, Design against domestic violence

We've also opened up a comment /debate space at Design Philosophy Politics:  
<http://designphilosophypolitics.informatics.indiana.edu/>

All the best for the holiday season and 2012.

Anne-Marie Willis

Editor, Design Philosophy Papers

[www.desphilosophy.com](http://www.desphilosophy.com)

[amwillis@teamdes.com.au](mailto:amwillis@teamdes.com.au)

## PROGRAM & EVENTS:

1.



Please go to [www.mcbw.de](http://www.mcbw.de) for further information and become part of MCBW!

MCBW is organized by bayern design GmbH and sponsored by the Bavarian State Ministry for the Economy, Infrastructure, Traffic and Technology as well as by the City of Munich. if International Forum Design GmbH is an MCBW cooperation partner.

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2.



 **APCHI 2012**  
THE FUTURE HUMAN CENTERED DESIGN FOR HUMAN INTERACTION

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The 10th Asia Pacific Conference on Computer Human Interaction

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## APCHI 2012

**August 28-31, 2012, Matsue, Japan**  
*Reflect, discover and innovate*

The 10th Asia Pacific Conference on Computer Human Interaction (APCHI 2012) will be held in Matsue, Japan, August 28-31, 2012. The conference brings researchers together from academia and industry and provides an excellent opportunity to exchange ideas and information on human-computer interaction and related areas in computer and communication technologies and human and social sciences.

All submitted papers will be subject to a double-blind review process. Accepted papers will be published in conference proceedings. Selected papers presented at the conference are planned to be published at a special issue of international journal after further improvement and revision.

APCHI 2012 will be hosted by Human Centered Design Organization (HCD-Net) and ACM (approval pending).

### Important Dates

- Submission site open (tentative): December 20th, 2011
- Papers submission due: February 1st, 2012
- Author notification of papers: April 30th, 2012
- Camera-ready papers due: June 15th, 2012
- Posters submission due: May 1st, 2012
- Author notification of posters: June 30th, 2012

3.

## **2012 International Design Excellence Awards open for entries.**

***The Industrial Designers Society of America has announced its International Design Excellence Awards® (IDEA) 2012 program is now open for entry.***



***Gold IDEA 2011 winner - Science Storms by Evidence Design for the Museum of Science and Industry, Chicago***

**The awards are changing slightly this year, with the introduction of no less than 5 new categories, including social impact design.**

**“In 2010, the jury decided the concept of the designer’s responsibility towards the world, its people and their cultures must be a more important part of the criteria for excellence in the awards. Now for 2012, there will be a new category added to reflect the profession’s deepening interest and commitment to help solve some of the world’s larger systemic issues,” explains Clive Roux, CEO of the IDSA.**

**“These issues have not been given as much attention as the incremental solutions for more mainstream mass-market products. This shift mirrors design’s shift from the position of styling in the**

middle of the last century, to a core problem solving and value added methodology for businesses today,” explains Roux.

Each year IDEA are awarded for design excellence in products, sustainability, interaction design, packaging, strategy, research and concepts

4.



# 2ND INTERNATIONAL CONGRESS ON GERONTOLOGY AND GERIATRIC MEDICINE 2012

25th to 29th February 2012



UCMS



AIIMS

All India Institute of Medical Sciences  
University College of Medical Sciences  
Indian Academy of Geriatrics (IAG)

#### CONFERENCE SECRETARIAT

Room 2602, Department of Medicine,  
University College of Medical Sciences and GTB Hospital  
Dilshad Garden, Delhi-110095 INDIA

Phone/Fax: +91-11 22595974 Email: ashgoe@yahoo.com Website: www.icggm2012.org

## **JOB OPENINGS:**

1.

**Teamdecode Software Pvt. Ltd.-It is a software service and consulting firm providing clients end-to-end product development services. Our offerings range from product usability and design, conceptualization, user experience design, implementation, testing and deployment of the product. We also provide boutique solutions that allow customized selection of services as per the product requirement. We offer specialized services such as heuristic evaluation, usability testing, information visualization, information and technology architecture review and enhancements.**

**url: [www.teamdecode.com](http://www.teamdecode.com)**

**Job Description :**

**Experience in HTML, Div, Java Scripting, Photoshop, Flash, CorelDraw, and Dreamweaver, wireframes.**

**Creatively worked on new website designs.**

**Develop & create user interface, designs, prototype, flyers, animated presentation, wireframe, snap shots, banners, logos.**

**Create concepts that meet the business objectives & which can be used by development team for product development.**

**· Desired Candidate Profile:**

**2+ years of experience.**

**Create Good aesthetic, design sense and should have an eye towards detail.**

**We are looking for people who have an ambition to succeed, keen on working in a startup environment**

**Job Location: Noida, sec 63**

**Interested ones please send your CV and portfolio to [neha.tyagi@teamdecode.com](mailto:neha.tyagi@teamdecode.com)**

2.

**Contact Details: [nitin@designmechanics.in](mailto:nitin@designmechanics.in), 9810665256**

**<http://designmechanics.in/>**

**Exp: 2-5 years**

**Skills: Flash animation (with at least basic actions script). DIV based HTML. Good Design sense, Photoshop, corel draw, illustrator**

**Job Profile: web design, HTML, Flash animations, flash presentations, web banners, emailer etc.**

3.

**Zynga India(Bangalore) is looking for Fashion Designer from fresher level to Senior level. Interested ppl can send their resume and portfolio to [mkumar@zynga.com](mailto:mkumar@zynga.com)**

**<http://www.linkedin.com/in/kumarmanish>**

**Sr. UI Designer | YoVille**

**Zynga Games Network India Pvt. Ltd.**

4.

**Our Esteemed Client is a startup based in Reston, VA. The company is currently raising its first institutional round. The company is co-founded by three serial entrepreneurs who have already been part of two very successful startups together.**

**Centive is the nation's first online health insurance exchange.**

**We combine actuarial analysis and geospatial algorithms to come up with personalized recommendations for each individual customer that best meet their need for benefits and network they want in the price they can afford. Our suggestions are comparable to those from a seasoned broker and we use the scale of internet to make that expertise affordable and universally available.**

**UX DESIGNER (Reporting directly to Director)**

**5+ Years Experience**

**Location-Noida**

**Education: IIT/NID**

**Responsibilities**

- **Help define and lead user centered design**
- **Create visually stunning UX**
- **Work closely with the development team**
- **Prototype experimental features**
- **Responsible for taking concepts from wireframe, prototype, design and implementation**

**Requirements**

- **Usability analysis and reviews for web applications.**
- **Interaction Designs (IxD) for web applications.**
- **Information Architecture and Navigation designs for web applications.**
- **Visual design themes and conceptual designs (Web application pages, Logos, Icons, Background images etc.) for web applications/products.**
- **User research and interface designs.**
- **Wire framing, HTML prototype development.**

**Salary would not be a constraint for a good candidate.**

**Pls do write back to sahil@cyborg.co.in**

**5.**

**Apalya Technologies is looking for a good Technical Writer on Freelance basis for about 2 weeks at an Urgent basis. The requirement is for Hyderabad area.**

**Please refer/recommend anyone you might have worked in the past/ or have known.**

**alya Technologies**

**[devesh.jagatram@gmail.com](mailto:devesh.jagatram@gmail.com)**

**6.**

**ThoughtWorks ([www.thoughtworks.com](http://www.thoughtworks.com)) is looking for UI Developers (3-10 years of experience) for Gurgaon location, below are the details. Please send your resume to [dineshj@thoughtworks.com](mailto:dineshj@thoughtworks.com).**

**Job Description**

**Position and Responsibilities**

**Work with all kinds of crazy developers, obsessive BA's and demanding clients to design and build new features.**

**Write good JavaScript code from scratch.**

**Produce clean, semantic HTML and CSS, agonizing along the way for pixel perfection.**

**Ensure cross-browser compatibility.**

**Make things shrink, twist, rotate, run across the page and fade (tastefully).**

**Build simple, blindingly simple interfaces and believe that writing maintainable CSS goes beyond good class names.**

**Believe that disabled and visually challenged users have a right to use the web as easily as everyone else.**

**You know how to balance the optimization of your own individual productivity with that of the team as a whole.**

**You're good at drawing pictures that effectively communicate your ideas and you've met bugs, taken them on and they now owe you money.**

**You believe that Agile and UI development can coexist.**

**Desired Candidate Profile**

**Skills and Experience**

**Experience developing modular front-end components using XHTML, CSS, JavaScript, XML, JSON and microformats.**

**Understanding of the difference between an interface, a class and an object and comprehension of cascaded inheritance, prototype based inheritance etc.**

**Knowledge of what the following have in common: trident, gecko and webkit.**

**Created good abstractions that actually get reused.**

**Considerable ability to be hard headed about markup quality.**

**That you've pushed the envelope in a similar role on a website with > 100 different page layouts.**

**That you've been doing this sort of role for atleast the last 3 years.**

**That PhotoShop, Flash, Flex and SilverLight are just some of the things you've tried on your road to us.**

**7.**

**Apalya Technologies is looking for a Front-end UI Developer (1-3 years of experience).**

**Position: Front-end UI developer**

**Location: Hyderabad**

**Job Profile:**

**\* Develop UI prototypes of designs for various products.**

**\* Provide high quality working prototypes which are ready to consume by backend development teams**

**\* Being able to realize high-quality designs into actual product UI to ensure that the standards are met**

**\* Participate in improvising the product development process and bring in efficiency and optimization to work by valuable inputs and suggestions**

**\* Work closely with both design and development teams and bridge the gap by providing good quality UI**

**Qualifications/Skillsets:**

**\* Being able to work on multiple projects at the same time**

**\* Well versed with mobile domain and constraints/opportunities of different platforms**

**\* Understanding of WAP vs Web vs Tablet/Touch based devices/platforms for HTML/Flash development**

**\* Being able to work in a diverse team and communicate with other business units**

**\* Good grounding on HTML/HTML5/CSS2/CSS3/Javascript/Flash etc.**

**\* Being able to deliver under tight deadlines**

**\* Being able to document the prototype for better understanding**

**\* Open to listening and learning**

**\* 1 – 2 years of relevant experience preferable**

**About Apalya:**

**\* Apalya Technologies is India's leading white-label content**

aggregation, provisioning and distribution platform in the Mobile Video Delivery space. Apalya's Mobile Video Delivery Platform seamlessly streams video content to Consumers, integrating Mobile Operators, Content owners and Mobile advertisers, creating new revenue streams across the New Media value chain.

\* Apalya Technologies was formed to take advantage of the growing demand for media and entertainment related Download in the mobile space.

\* Apalya aggregates premium entertainment content from many different content providers, and then optimizes the content to be suitable for small screen or mobile viewing. Apalya's unique technology works on delivering the best possible mobile entertainment experience based on the type of the device and the type of network being used.

Interested candidates can send in their updated resume and portfolio to [devesh.j@apalya.com](mailto:devesh.j@apalya.com) or [pradnya.g@apalya.com](mailto:pradnya.g@apalya.com).

8.

Flipkart.com is an internet start-up company that operates in the e-commerce domain. Flipkart.com was set up in Sept 2007 by a couple of young, enthusiastic professionals from Amazon.com as an online book retailing venture with the objective of making books accessible to individuals living in the farthest parts of India at competitive prices backed by prompt delivery and excellent customer service.

We are currently hiring Senior Interaction Designers. Below is the job description for your reference. However, the responsibilities are not limited to what is mentioned in the job description, but is ever evolving based on the growing needs of the organisation and the capabilities the individual brings with him/her.

**Senior Interaction Designer**

Qualified candidates will have solid experience with UI / Interaction design, a passion for critical analysis and usability problem solving, and the ability to create world-class interfaces that are clean and simple to use.

**Responsibilities**

\* Play a key role in the design of our user interfaces and take part in all new site features

\* Work primarily with the product and engineering teams, but lend the marketing team a hand when needed.

\* Turn product requirements into compelling user interface designs under tight release deadlines. Promote consistency across Flipkart product, working from and building upon our style guidelines. Consult and collaborate with Product Management and Developers throughout design to ensure design work consistently answers Product Requirements and brand identity

\* Conduct individual user interviews as input for projects, participate in or conduct focus groups, conduct expert evaluation of existing services.

\* Conduct benchmarking of services and applications to discover and define best practice in the given subject area.

\* Define the overall service structure, including flow charts and interaction model.

\* Create wireframes to best illustrate and document a service in detail.

\* Support the creation of, or create, functional or UI specifications for services or applications. Develop design ideas and basic concepts into wireframes and then fully realized design solutions for new projects

- \* Co-operate with visual designers to solve problems and create full design solutions on projects.
- \* Participate in defining the design brief as well as set up the design concept to answer the brief for new projects.

**Requirements:**

- \* **\*\*A must\*\***- a portfolio demonstrating 3-4 years of UI / interaction design for multi-user / social web application functionality, successfully delivered projects that demonstrate design expertise
- \* Clean, fresh design aesthetic and strong eye for layout
- \* A degree in human-computer interaction, web / graphic design, or equivalent experience, interaction design
- \* Knowledge of the latest design patterns and usability principles
- \* Excellent communication and interpersonal skills with the ability to present information concisely
- \* Substantial and demonstrable experience in interaction design, complemented by knowledge of visual design, user interface design, usability, accessibility, and information architecture
- \* A high level of proficiency in Adobe Photoshop and Illustrator and wireframing tools
- \* Experience in working with multi-disciplinary teams of designers, researchers and software developers
- \* Excellent organizational skills with particular emphasis on assessing priorities when dealing with heavy workloads and tight deadlines.

**Pluses**

- Experience working in an agile environment
- Proficiency with standards- compliant HTML, CSS, and JavaScript (jQuery)

If being associated with a high energy and creative organisation with a start-up culture and being part of a growing organisation and contributing to its success excites you, then please email [supriya@flipkart.com](mailto:supriya@flipkart.com) and [careers@flipkart.com](mailto:careers@flipkart.com) with your latest resume and portfolio. Please note, portfolios are a **MUST!**

9.

**Salt Studios is urgently looking for Graphic Designers/Senior Graphic Designers in Branding and Communication Field.**

**Experience: 1-4 years in a Broadcast Design company, Television channel, Branding agency, or Design firm. Those interested can send in their resumes along with a brief portfolio at [\\*career@saltstudios.tv\\*](mailto:career@saltstudios.tv)**

**Company Profile: \*Salt is a brand communications and creative services hot shop housing the right professionals who understand the business of broadcast branding to provide the right solutions to broadcasters and media houses that wish to make a difference. To know more : [\\*www.saltstudios.tv\\*](http://www.saltstudios.tv)**

10.

**We are looking for a graphic designer to do our website.**

**Please contact me on [mitali@drartanddesign.com](mailto:mitali@drartanddesign.com) or 9833591901.**

11.

**Philips Design, India is looking for three designers.**

**The position titles are: UI Designer, VI Designer (Screen), Communication Designer (Print).**

**Experience: 2-4 years**

**To apply mail back with your portfolios to: [Abhimanyu Kulkarni \(abhimanyu.kulkarni@philips.com\)](mailto:Abhimanyu.Kulkarni@philips.com).**

**Do specify the position title in your mail title.**

12.

**USER INTERFACE DESIGNER**

**2 + Years Experience**

**Requirements:**

**Execute the User Interface design projects successfully.**

**Ability to convert the requirement into wire-frames.**

**Creating high and low-fidelity wire-frames, task analysis and work flows.**

**Good understanding of usability and user centered design principles.**

**Ability to analyze product, gather user feedback through methodologies like task analysis, usability audit and usability methods.**

**As a UI designer you will work closely with Visual Designers and if required with development teams to assist with user interface and specifications.**

**Ability to work independently and in a team.**

**Strong time management, communication and interpersonal skills.**

**Working knowledge of UI prototyping tools, such as Visio, Photoshop, MS Office and other related tools.**

**Excellent written and verbal communications**

**Bachelors or diploma in Visual Communication or any design related field.**

**What Think Design Collaborative is offering:**

**Challenging and exciting projects**

**Creative work environment**

**Attractive compensation commensurate with performance**

**About Think Design:**

**Think Design is a Global Research, Design and Innovation consultancy with focus on User Experience Design and Industrial Design. We work across a broad spectrum of industries, including Appliances, Telecommunications, Automobiles, Education, Retail, Software Products, Enterprise & Web Application, Mobile Interfaces and Embedded Applications.**

**Established in 2004, Think Design operates from New Delhi and Hyderabad, with partners across the globe.**

**Think Design Collaborative Pvt. Ltd.**

**APM Square, Off Road No. 1, Banjara Hills,**

**Hyderabad - 500016.**

**[www.thinkdesign.in](http://www.thinkdesign.in)**

13.

**We are looking for an experience candidate (2 in total) from similar Automotive manufacturing or any other industries with more or less the same work profile.**

**Designers specialized in any discipline such as Textile, Apparel/Fashion, Lifestyle & Accessory design, Product design et al with good understanding of materials and who can add value to the team.**

**Designation: Colour & Material**

**Experience required: 5+**

**Location: Pimpri, PUNE**

**Profile Brief:**

**Customers expect uniformity of appearance within any group of the same product. When customers see a difference between objects/parts/surfaces that are intended to appear in the same, difference is associated with poor quality Appearance Harmony is required to deliver a quality product.**

**- Colour and Materials Design and Selection (paint, plastic, fabrics, carpets, headliners, etc, etc....)**

- Appearance target setting (Mastering)
- Supplier awareness and communication
- Appearance approval activities at launch
- Research trends & ensure that what we create for the programs will satisfy current & future customer needs
- Work with a team of Designers from sketches to the Product \*\*

We look forward to hear from you.

For any query please get in touch, email: [margaretzinyu@gmail.com](mailto:margaretzinyu@gmail.com)

14.

**Zycus Infotech, a leading product development company is looking for a Flash+AS3 expert**

**Requirements:**

- Good knowledge of Actionscript 3.0
- Should be well-versed with Design Patterns
- Should have knowledge of integrating flash with different technologies (JAVA and PHP)
- Should have fluency in using Data structures
- Well-versed with Adobe Flash Professional IDE. (Cs3, Cs4 or Cs5)

This full-time position in Mumbai, India. So freelancers please excuse.

Interested applicants kindly revert with your updated CV to [rmg@zycus.com](mailto:rmg@zycus.com)

15.

**A job opportunity with HGS Interactive - a full-service interactive communications consultancy based out of Mumbai (Above Vashi Station). They are looking out for a Web Usability Analyst/ Information Architect.**

**Profile for Web Usability Analyst/ Information Architect**

**Design and prototype advanced website/software UI/UX concepts for web clients and RIAs.**

**Know how of usability and accessibility standards for web.**

**Facilitating design ideation, prototyping, and usability test efforts**

**Ability to conduct task analyses, usability tests, heuristic evaluations, cognitive walkthroughs, site visits, focus groups and related user research.**

**Using ad-hoc tools and technologies (such as HTML, CSS, VS.NET, Flash) as part of the iterative prototyping-design cycles.**

**Translating user requirements into innovative design sketches, wireframes, prototypes and written specifications as needed to help translate ideas into production.**

**Establishing usability goals for the applications and generating long-term usability plans.**

**Collaborating with software developers, web UI designers, and marketing managers. Including presenting plans, UX designs and scenarios to the management.**

**Directing web UI developers and graphic designers to reach the desired UI UX functionalities.**

**Finding and fixing current usability and UX related errors and flaws in applications.**

**Conducting usability testing during various phases of product development.**

Developing various types of user scenarios and stories.  
Introducing new technologies and emerging trends in user interfaces and user experience approaches to the company.  
You can get more information about them on their website - [www.hgsinteractive.com](http://www.hgsinteractive.com)

In case you are interested, please email your details on [brian@hgsinteractive.com](mailto:brian@hgsinteractive.com)

16.

Exnxt design, Mumbai, is looking for designers/generalists/tinkerers (UX/VC/ID) with various competency levels to join our cross-disciplinary team. You will be working in a fast paced, highly collaborative startup environment with lots of energy & passion to build next generation, connected products & experiences. If this excites you, read more about the openings here - <http://bit.ly/vKeaSs>

17.

**Web and Visual Designer**

**1 Opening(s)**

**Teamdecode Software Private Limited**

**Experience: 2 - 4 Years**

**Location: Delhi, Delhi/NCR, Noida**

**Compensation: Industry best (dependent on experience and skills)**

**Education: UG - Any Graduate - Any Specialization, Graduation Not Required**

**PG - Any PG Course - Any Specialization, Post Graduation Not Required**

**Industry Type: IT-Software/ Software Services**

**Role: Graphic/Web Designer**

**Functional Area: E-Commerce, Internet Technologies**

**Desired Candidate Profile**

- 1. Strong visualization skills and conceptualization skills while designing user interfaces**
  - 2. Passionate about creative solutions and should be a natural problem solver**
  - 3. Hands on experience in writing table and table-less HTML**
  - 4. Working knowledge of CSS**
  - 5. Hands on experience in designing tools like Photoshop, Corel Draw**
  - 6. Experience in designing applications for iPhone or Android platform would be an added advantage.**
  - 7. Good communication and analytical skills**
- If you thrive in a high-energy environment and are passionate about what you do, then Teamdecode is the right company for you.**

**Contact Details**

**Company Name: Teamdecode Software Pvt. Ltd**

**Website: <http://www.teamdecode.com>**

**Address: Teamdecode Software Pvt. Ltd**

**A-139, Ground Floor, Sector-63**

**NOIDA, Uttar Pradesh, India 201307**

**Email Address: [contactus@teamdecode.com](mailto:contactus@teamdecode.com)**

**Telephone: +91-9910241589**

18.

Infomedia18, Mumbai is seeking visual designers to work on our web based products as well as magazines. If this opportunity interests you, please send your resume to me at [geetaa.bhatt@infomedia18.in](mailto:geetaa.bhatt@infomedia18.in)

## **Visual Designer**

**Division: Design | Type: Full time | Location: Mumbai**

### **Responsibilities**

**Drive product designs from ideation to implementation.**

**Create and deliver elegant visual user interfaces.**

**Communicate designs through mockups and interactive prototypes.**

**On the product side, work collaboratively with the Engineering Team to evolve the design to support new features and enhancements.**

**On the business side, work collaboratively with the Marketing and PR Team to develop visuals & layouts for campaigns, product related communication and marketing collateral.**

**Mentor junior members of the design team. Lead by example.**

### **Requirements**

**3+ years designing highly usable, elegant interfaces for web, desktop and mobile applications.**

**Portfolio of consumer-focused websites and applications.**

**Exceptionally strong visual design skills - layout, composition, typography, color palette, iconography.**

**Strong hands on experience in design software like Photoshop, Illustrator, Corel Draw and InDesign.**

**Ability to solve interface issues via design and not just come up with pretty pictures.**

**Strong user experience instincts and wireframing.**



**For free Registration: write to**  
[subscribe@designforall.in](mailto:subscribe@designforall.in)

**Write to us about change of**  
**e-mail address:**  
[address@designforall.in](mailto:address@designforall.in)

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**seminars/conferences /workshops.**  
[News@designforall.in](mailto:News@designforall.in)

**Feedback:**

**Readers are requested to express their views**  
**about our newsletter to the Editor**  
[Feedback@designforall.in](mailto:Feedback@designforall.in)



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We need your feedback on our publication and  
your support for popularizing the concept of our  
social movement of Design For All/ Universal/  
Barrier free/ Inclusive Design. It is our further  
request kindly submit your latest articles,  
research findings , news and events with us for  
publication in our newsletter.*

*With regards  
Dr. Sunil Bhatia  
Design For All Institute of India  
[www.designforall.in](http://www.designforall.in)  
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Tel:91-11-27853470(R)*

**Forthcoming Events and Programs:**

[Editor@designforall.in](mailto:Editor@designforall.in)

The views expressed in the signed articles do not necessarily reflect the official views of the Design for All Institute of India.

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