THE OMNIUM PROJECT:
PROPOSING A FRAMEWORK FOR CREATIVE ONLINE INTERACTION

www.omnium.unsw.edu.au

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Abstract

The Internet has been described as *the third revolution in mass communication* following the Roman alphabet and the printing press. Within the specific context of creative disciplines, the potential for effective, collaborative online working processes between distanced individuals is now far more tangible. The Internet offers us exciting opportunities to break free from more traditionally individual and local practices: ultimately allowing us to form creative alliances with people we may not normally meet.

An additional potential resides within the removal of physical, spatial. temporal and cultural boundaries. Educational institutions worldwide are 'jossling' to form revised pedagogical approaches within new 'flexible delivery' programs, at the same time hoping to reap immense economic benefits in the harsh and competitive environment of 21st century tertiary education.

However, in the ensuing 'rush' to realise such a potential, educators, systems designers and programmers often seem to neglect to consider issues needed to make the transition comfortable and valuable when moving from our familiar face-to-face classes, to new online existences. Simply utilising the abundance of available technology is not enough to help us adapt to our new surroundings. Technology must be integrated with purpose, aesthetic, theory, sociology and ergonomics to help us adapt.

This paper will explore issues to consider when designing interfaces for collaborative online education and practice. It describes in detail one such initiative, The Omnium Project: a web-based environment that has begun making the new world for designers/students a comfortable and productive place to learn and work.

Introducing a Problem to Address for Online Creative Education

"Digital tools have been designed to emulate the behavior and properties of existing tools and materials. So it is no surprise that the fields that have heavily staked their future upon these systems, mainly digital art and design, have had difficulty moving forward at all." - John Maeda (2000)

It remains frustrating to me as a designer and educator, why so few websites in general, are designed responsibly, effectively and innovatively to make functioning online a pleasurable, comfortable and effective experience. The general standard of design for the Internet seems set at a somewhat low, yet accepted level. I have views on this phenomenon which I will explain as I progress through this paper, but which basically reside around an opinion regarding the understanding, maturity and experience of both the setting and those who design for it. With this

vantage established, it becomes more frustrating, and even despairing, when one progresses further to examine the standard in terms of design of web based tools for online education. But let's not stop there. When we take our search for quality interfaces to the furthest depths, to online *design* education, we find the journey to be a narrow 'cul-de-sac' of short-lived attempts, many of which are no more than 21st century distance learning packages. Very few examples exist which analyse and challenge; the notion of using inherent and positive characteristics of the Internet (context); established creative processes in specific disciplines (content); and existing online educational alliances (collaboration); to offer designers a new and effective way to learn.

The Concept of the Modern Online Design Studio

Just as the traditional *design studio* is described by Schon *(1985)* as arguably unique as a form of educational delivery compared to many other subject areas, the *online design studio* also needs to be structured differently to other courses offered online by institutions around the world. The *online studio* ideally involves a 'community' rather than isolated one-on-one communication. It seems to be unique in aspiring to facilitate the creative process within a web-based environment, and to deliver online education to students of a discipline based on a relatively loosely structured mode of teaching and learning. Online design studios are however, now perceived as an increasingly attractive alternative to traditional studio teaching.

The online design studio refers to a networked studio, distributed across space and time[1]. Participants exist in various locations, and the design process and communication are computer mediated and computer supported. Often referred to as virtual design studios (VDS)[2], they allow designers to be located anywhere yet still participate in collaborative work[3]. Communication in the online design studio can be broadly classified in two ways, synchronous and asynchronous, with most examples relying on a mixture of both methods.

• *Asynchronous communication* refers to designers working at different times, possibly on different parts of the design, without the simultaneous presence of other team members. Technology that facilitates asynchronous communication includes email and FTP (file transfer protocol;

• *Synchronous communication* implies the simultaneous presence and participation of all designers in the studio collaboration and is supported by high-bandwidth technology such as video conferencing, shared electronic whiteboards and chat rooms;

Collaboration in the online studio, according to a study by Maher et al[4], can be divided into two extremes of sharing design tasks; *single task collaboration* where each designer attempts to create a shared conception of the design task; and *multiple task collaboration* referring to a design problem divided up amongst the participants in such a way that each person is responsible for a certain part of the design.

A challenging online design studio initiative developed in recent years, which exhibits both methods of communication and the two collaborative approaches is *The Omnium Project*. Describing itself as a *framework* for online design collaboration, it focuses specifically on the production of a technical web-based system *and* exploration of a collaborative, online approach to the design process, mainly within the discipline of visual communication.

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[1] Maher et al (1996) p1
[2] This term was coined by William J Mitchell in his talk at the MIT media lab in 1993 (Referenced by Wojtowicz, 1995)
[3] Collaboration is a key concept and implies that the members of the design team share a common goal. This can be differentiated from cooperation, which although similar, only suggests that the design team work together (Maher et al, 2000, p73).
[4] Maher et al (1996)

THE OMNIUM PROJECT

Introduction

The Omnium Project (OP) was founded in 1998 in response to perceived 'dislocation' between design education and design practice. It became specifically interested in the emergence and strength of collaborative work between practicing graphic and new media designers, but also similar practice within other design disciplines, notably architecture. Such collaborative approach to designing appeared to echo views of contemporary design students in the way they wished to work. Collectives such as Antirom[5], Futurefarmers[6], AustralianINfront[7] and particularly Tomato[8] were heavily influential, both philosophically and physically, in the formation and structure of the Omnium Project. The importance of awareness and contact with trends in both commercial and educational design practice are deemed crucial to stabilising the 'dislocation' between the two contexts. Further to this, knowledge of other online design interactions as well as obvious ongoing technical developments for the Internet assist OP's aim to make networked computers an easy environment for designers to communicate and work together effectively.

After five years of research, trials, reflection and ongoing revisions, the OP has emerged as a unique *framework*, facilitating national and international visual collaboration between artists and designers within online communities. OP's achievements to date have now seen the scope of their visual and social interactions extend past Art and Design into other disciplines such as Science and Music, that can also collaborate using a computer assisted visual process. Despite OP having been developed within an educational environment, its potential for use externally in commercial practice is now being realised and explored further. OP's framework, consisting of a user-interface *(system)* and working process *(approach),* can now be applied to both educational and commercial settings: in essence, anywhere groups of people need to work together visually, irrespective of whether they exist within the same location, time-zone or culture.

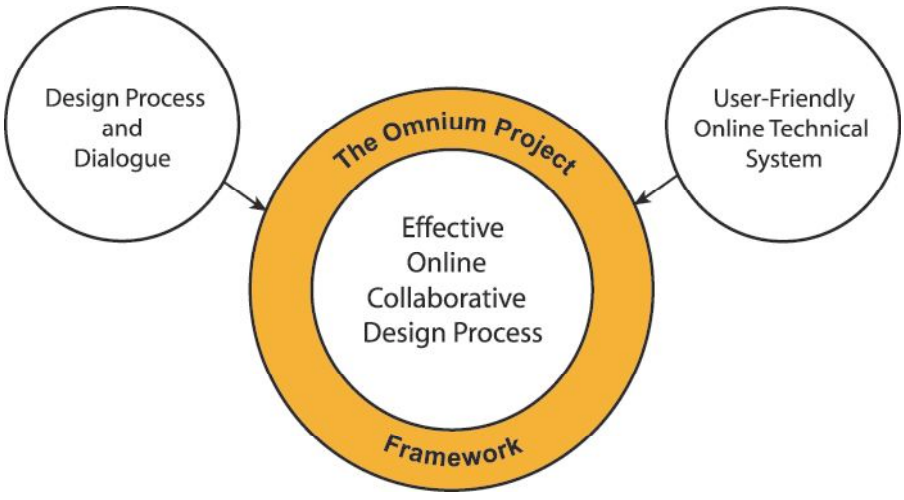

Figure 1. The Omnium Project framework: a *System* and *Approach* to facilitate an effective online collaborative design process.

[5] www.antirom.com
[6] www.futurefarmers.com
[7] www.australianinfront.com.au
[8] www.tomato.co.uk

The Omnium Project's framework

Philosophically, OP's framework (Fig 1) aims to examine the role *online collaborative design* can play in contemporary design education and practice and how this can best be offered to today's design students and professionals. It maintains two underpinning concerns:

1. *Design process and dialogue*: by exploring the collaborative and digital generation of ideas and concepts across time, distance, culture and discipline; and

2. Developing a *user-friendly online technical system:* The possibility of applying a design process and dialogue within a new technical system that uses Internet space for its classrooms or studios.

FIELDS OF REFERENCE

Three 'fields of reference' for designing OP's online collaborative design framework

Between 1999 and 2003, The Omnium Project conducted a series of acclaimed international *online collaborative design* (OCD) initiatives[9], using three successive tailor-made technical *systems* (v1.0, v2.0, v3.0). Individually they analysed three *fields of reference,* perceived as being fundamental in contributing to effective OCD process in Visual Communication. The three independent fields of reference were; traditional visual communication design practice; the Internet & online technology; and past online collaborative design (OCD) innovations (Fig. 2).

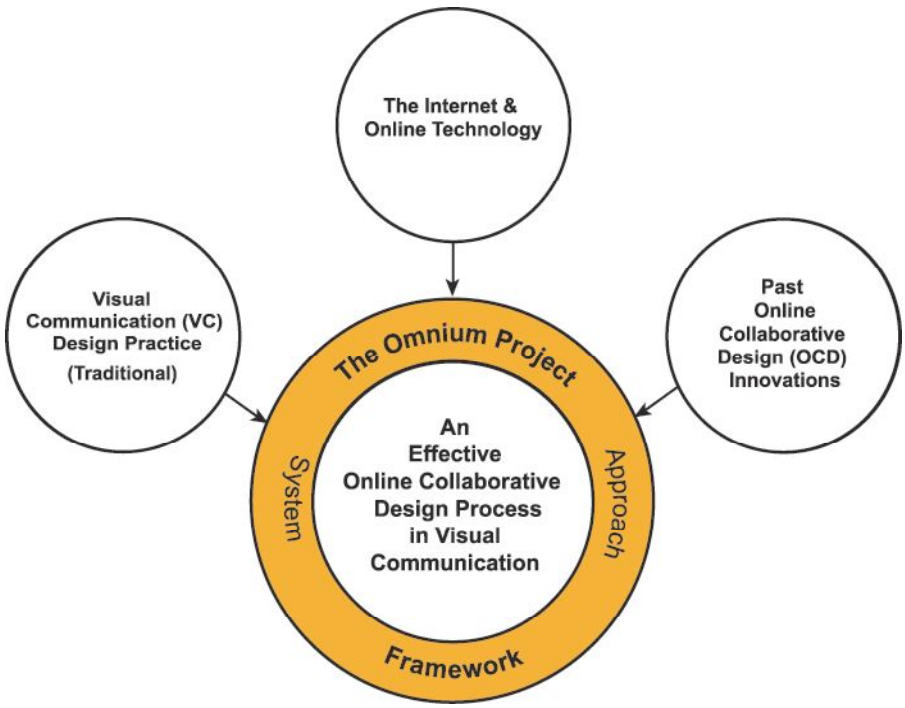

Figure 2. The Omnium Project framework: identifying three fields of reference to inform an effective online collaborative process for visual communication design.

[9] www.omnium.unsw.edu.au > 'Past Online Projects'

Despite the three defined 'fields of reference' being previously explored extensively and individually by numerous design practitioners, theorists and academics, OP identifies an important *interdependence* between them that □□□had not been previously acknowledged. Researching each field in isolation has provided valuable informing factors that can have been integrated to produce a conclusive Omnium *system* and *approach* for OCD in visual communication (VC) design. Details of all the investigations to date can be viewed from the OP homepage (fig 3). OP is now in a position to conduct continued OCD projects, implementing its unique *framework* for creative online collaboration for VC designers and students. Each is tested and evaluated, using qualitative measures, to ascertain the effectiveness of Omnium's framework and its value to a new design process for geographically distanced designers.

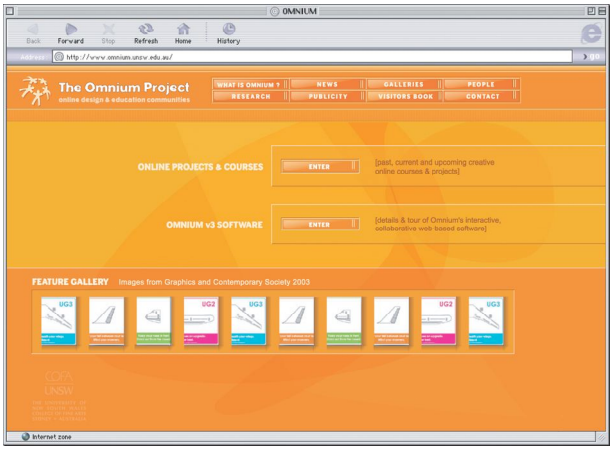

Figure 3. The Omnium Project Homepage: www.omnium.unsw.edu.au

Let us look to each field of reference individually to recognise issues that can help design an effective framework that encourages an effective online design process for those wishing to engage in such activity.

1. Visual Communication Design Practice: collaborative precedents in design education and practice

In his fascinating account, *What is a Designer: things, places, messages*, Potter (1985) acknowledges "design education *must* by its nature, dig below the surface, and must at the outset be more concerned to clarify intentions than to get end results." He continues, further verifying OP's two-point philosophical approach by adding "an intelligent design course will also recognise that much design work is a shared co-operative effort: students should be encouraged to help each other."

It seems that in many design faculties, a dislocation has taken place between the way design students are encouraged to study and the way design practitioners so often now tend to work. If the educational *design studio* in any part tries to emulate design practice, then the traditional setting, best analysed by Donald Schon, is certainly in need of review. It is worth noting Schon's (1985) praise of architects' reputation to "choose to reflect on their own performance" is reinforced by the number of online design education initiatives that have their roots in architecture faculties. "To the extent that they chose to do this, moreover, they are more likely to be successful in constructing a viable and vital future for their own schools".

Commercially, groups like *Tomato (1996)* have taken the collaborative approach to design to the highest level. Establishing themselves as an art and design collective in London in the early 1990's, they profess "*tomato* is a system, a structure and a framework fostering a variety of approaches to work: this work reflects and is formed by the state of creative flux between its members and the outside world". Tomato do not identify themselves or any of their work by individual credits, preferring to label all their output as '*tomato* projects'. They themselves now exist in a variety of locations in Europe, USA and SE Asia and perhaps their approach to supporting a collaborative design process "based on conversations" began the trend away from the notion of the celebrity designer to the that of a 'collective' identity usually represented by the name of a website.

The activity of *designing* has witnessed a definitive shift in attitude over the past decade, with more and more designers from a variety of disciplines choosing to adopt collaborative working approaches when undertaking commercial and experimental projects (Sclater 2001). This evolution in methodology is supported by the view that *"designing is not just contingently, but fundamentally, a collaborative, interdisciplinary, geographically distributed and multimedia activity"* (Mitchell 1993). Such a notion significantly challenges and contradicts the traditional paradigm of Design being a personal activity and notions that *collaboration is more likely to hinder than enhance an individual designer's thought process* (Rand 1993). The traditional face-to-face design process, seen as an individual's reflective dialogue with their work, (Schön 1985) no longer seems solely applicable in contemporary design practice. Many design projects, particularly in industrial, engineering and architectural design, claim to be already engaging in collaborative design. However, OP contests that the majority of these examples are *not* true collaborative design projects, but merely an assembly of completed components already having undergone their own process using localised and traditional face-to-face design methods. True collaborative design is still scarce between designers who do not reside in the same location and a collaborative *and* effective working process continues to be difficult to achieve (Kvan 2000) particularly during conceptual stages of a project.

The natural progression in VC design, from an individual activity to collaborative ventures, has created a strong market demand for online technical systems to support such interaction (Laiserin 2000). Despite widespread implementation and promotion of a variety of online tools for generic interactive communication (particularly for education), no specific software is currently available to conduct online collaboration in VC practice. In addition, strong anecdotal concern□□ exists from end-users, regarding usability and appropriateness of the generic online tools when applied to specific contexts (Brabazon 2002). OP has consistently strived to address this situation, by understanding the nature of designing and problems likely to be encountered during an online process. However, OP is by no means purely a technical venture involved in producing an OCD software tool. OP research activity since 1999 recognizes the inclusion of an online design *approach* as equally essential in informing an effective online design process for VC designers (McGillick 2000). The extent to how far OP has progressed in terms of research, design, development, production and implementation of its frameworks seems unparalleled worldwide. No other research has managed to include; such participation, scale and ambition of projects; level of reporting; or inclusion of inter-disciplinary design professionals, educators and students (Gower 1999, 2003).

2. The Internet and Online Technology: The speed and context of the Internet

Bandwidth (speed of internet connection) is always cited as the scourge of radical progression in today's web and interface design. However, other design disciplines may view such a restraint as one to be conscious of and worked with, instead of used an excuse to hide behind, defending poor process and resolve. At the international Fresh Conference in Singapore in 2002, celebrated

graphic designer Neville Brody spoke about our *responsibility* as web designers, reminding us that only 7% of the world's population have Internet access, with only a tiny fraction utilising fast broadband connections.

The last decade has seen the most rapid growth in the Internet as a valuable and easily accessible tool for privileged society. A wonderful communication and archival tool, but perhaps a bitter-sweet pill for visual communication and digital media designers. The lack of rules, standards and editing are inherent characteristics that have contributed to a generally poor quality of design found on the Internet. However, again these should not form the basis of excuses for poor standard of designs. The Internet has already begun determining its own characteristics and behavioural responses by those using it. It is these basic elements that are seldom recognised, accepted or understood by web designers. By acknowledging these characteristics and working within them responsibly and positively, the Internet becomes a very real and physical space, one that should be embraced for the freedom it allows us. Unfortunately, such freedom can also contribute to an inevitable situation where we are exposed to large quantities of poor design and this detrimentally affects our experience. (I refer not so much to the information on the Internet but the way it is presented)

Having worked with the Internet for the last four years, it has gradually become apparent that there *are* certain characteristics we can observe in order to design responsibly for this relatively new space and to have any success in providing a positive experience for the end-user. In essence, the Internet has grown rapidly in the shadow of a highly respected, undoubtedly more mature and over influential older sibling. Comparing the Internet to the 'real world' is like comparing a rising star in a major law firm to his/her carefree younger sibling, more intent on mastering the latest PlayStation game than studying religiously for top grades to emulate big brother and qualify for law school.

When one ceases to compare their achievements individually, judging one against the other, it becomes apparent that both will have certain qualities and limitations unique to themselves, which when identified can be used in different ways. When Internet designers stop trying to replicate the 'real world' and instead identify specific characteristics unique to this precocious new context, it may be possible to make headway in a positive and innovative way. When the Internet is judged on its own performance instead of criticised for conflicting with the norm, it may be allowed to add to that which has existed before, that with which we have become far more familiar simply through experience. Surely, the two sibling worlds (face-to-face and online) can exist side-by-side in harmony and in support of each other by providing equally valid solutions.

Challenging some preconceived notions of designing interfaces for online design education

When one examines web tools/interfaces for online (design) education certain fundamental flaws become apparent. Unfortunately, planning decisions are too often made guided solely by the availability of ever-evolving technologies. Because new items of technology become available, does not mean they are necessarily appropriate to include. For example, one can challenge the reoccurring obsession for live video-conferencing and use of web-cams. Through its own post-project evaluations, OP notes that *anonymity* of participants is a strong positive when discussing issues such as critique and feedback of work. The shy student, who may not contribute in a normal face-to-face setting, now has the confidence to contribute freely and enhance the overall learning and design process.

We can also challenge from a number of angles another well-cited notion; that you cannot design online unless there is a synchronous (live) electronic-whiteboard.

Initially, the process of designing takes time and as Schon (1985) notes, involves reflection-in-action. Both cognitive and meta-cognitive processes take place whilst designing, which are not activities that we would want to take place under the pressure of 'real-time'.

Secondly, it assumes that designers can only develop ideas through live sketching: a notion that is strongly challenged in Kvan's (2001) recent work. His research of online architectural studios finds that the design process is actually enriched by distanced individuals writing their intentions to each other instead of relying solely, if at all, on drawings

Thirdly, electronic whiteboards are expensive 'gadgets' and only usually accessible to the *teacher*. Any valuable information is just as easily communicated in text, still or small (file size) moving images and this can occur quite adequately and simply via email at little or no cost.

These are just a small series of examples we can discover whilst working collaboratively with designers, using the Internet to break down the disadvantages of distanced communication in the design process. To further understand why such a scenario exists, regarding the poor quality of web tools for design education, we may also briefly examine those charged with providing interfaces for us to interact with.

Visual communication proficiency of web interface designers and programmers

I would like to also discuss the visual communication ability of many web designers and their concern with the experience we have as end-users of their work. If we look to visual experience, then predominantly we are looking at graphical proficiency both aesthetic and technical.

When asked about the contemporary term *information architecture* and the difference between it and graphic design, Massimo Vignelli (Heller, 1998) argued that there are two kinds of graphic designers: those concerned with history, semiotics and problem solving and those who align themselves with the figurative arts, trends and fashion.

Declaring himself as a *structuralist,* compared to somebody like David Carson, whom he sees as an *emotionalist*, Vignelli sees a place for both *avenues* of approach although argues that both could benefit from more integration. When asked about the importance and value of technology to these avenues, Vignelli replies "technology gives us the opportunity to do better what we already do. It gives us the control between the tool and the mind".

Graphic design critique continued through the 90's to adopt practitioners, whether graphic designers or those concerned with web media, into one of two families: traditional and responsible or experimental and carefree. Designers for the Internet can also often fall into two similar groups: technically efficient or technically elegant. You can see by the prefixes in each case, the preoccupation and focus of much of their work. There perhaps, lies both confusion and potential problem. The difference in approach, ambition and psyche between designers and programmers is an issue that often can lead to conflict. The more typical training of each, one based in the visual arts and the other in computer science, can create a dichotomy of objectives that can often cause noise in the design process. A harmonious relationship between these two roles has to be attained before any progress can really be made as both clearly contribute essential elements. This situation of an awkward 'powerplay' between technical and aesthetic

contribution is by no means peculiar to web design and has been a common struggle in other design disciplines for many years. In fact, it is such interplay between technical and artistic that the Bauhaus embraced through its bipolar workshop structure in which each student had a *Master of Form* and a *Master of Craft* acting as mentors.

In many instances, if you were to ask the web designer /programmer which (non-technical) theories, models, or historical references had influenced their outcome, they may look confused and look for your question in the 'help' drop-down of Macromedia's Dreamweaver. That is perhaps too cruel, but in the majority of instances, neither of Vignelli's two *avenues* have been journeyed at all.

3. Past Online Collaborative Design Innovations: Relating the Omnium Project to other Online Collaborative Design initiatives.

The majority of existing *OCD* innovations have taken place as numerous but relatively small research projects, based within architectural and engineering education. Hence, they have developed a strong pedagogical perspective. The early collective studies of Maher, Simoff and Cicognani (Maher et al 1996, 2000), are recognised as seminal investigations that analysed specific aspects of web-based interaction between architecture students. The studies centred round practicalities of organization and technology within their *virtual design studios*. A range of research *does* exist that has identified, analysed and evaluated specific strategies contributing to the success and shortcomings of other VDS projects conducted at various educational institutions. Examples are: *cultural difference* (Goeller 2000), *online communication* (Kvan 2000, Scrivener et al 2000, Young et al 2000), *idea-generation techniques* (Kvan 2001, Van der Lugt 2000), *multidisciplinary cooperation* (Milne 2000), *Internet mediation* (Kolarevic 2000), *digital identity* (Cheng, 1998), *pedagogical issues* (Ashton 2000, Brown and Moreau-Yates 2000, Swann 1999), and *project management* (Hendricks and de Wilde 2000, Maher et al 2000). In application of research, Curtin University in Perth, Australia, were instrumental in extending Schön's (1989) description of *'design as reflective practice'* to pedagogical issues for online teaching and learning, with the introduction of the first online Master of Design program (Swann, 1999). Such research studies have been beneficial whilst developing OP's strategies, however, despite an established research base in architectural, engineering and educational OCD, little research has specifically investigated similar processes and possibilities for VC design. OP has only identified one asynchronous experiment in online VC design, called *StudioSpace*, originating from Gray's School of Art in Scotland (Malins et al 2001). In addition, a distinct gap exists in any research regarding online interaction and collaboration in professional VC design practice of any nature. The Omnium framework is the first to comprehensively address the gap in OCD research and practice, specifically for the VC discipline and the wider professional design community.

Figure 4. Omnium Research: information and links to over fifty other international online design education projects

Recognising characteristics of the Internet which inform online design decisions

Analysing evaluations following OP's online collaborations over the last 5 years, together with those conducted by others in the field (fig 4), it offers ten characteristics prevalent and seemingly popular when working, browsing or socialising on the Internet:

1. anonymity / removal of inhibitions
2. speed of communication
3. flexibility to avoid restrictions of time / place / culture / gender
4. multi-call facility (the internet is never engaged)
5. the ability to work in real time or stored time dependant on need.
6. never-ending exploration potential (data base)
7. option to work in a variety of formats (text / movies / still images / sound)
8. the entertaining, enjoyable and social context
9. economically and sustainably sound to the environment
10. the excitement of working with innovation and the anticipation of what is to come

Combining the Omnium Projects approach and system in online design interaction

Throughout a series of online design projects, OP has offered a design process aimed at exploring the generation of creative ideas between distanced individuals. In doing this, all OP's online projects contain the following characteristics:

- Collaboration and interaction between participants who work in numerous small teams (maximum 5 people) regardless of geographical, time, culture, gender, age or discipline.
- A focus on creative, cognitive and communicative processes, rather than a preoccupation with end results.
- A concentration on content and activity over technical issues involved in allowing interaction to take place.
- An encouragement to work with people whom one normally might not meet.
- The provision of an online environment that attempts to understand behavioural issues of people interacting online.
- A recognition that the Internet is a new and real space, not a 'virtual' space trying to mimic the physical world to which we might be more accustomed.

The working process is supported by the Omnium user-interface, in essence now a piece of software, that has been developed with the advantage of a research base that has provided many informing factors. OP has implemented its own design rationale of five E's to address concerns regarding the poor standard of web designs expressed earlier in this paper.

• Efficiency • Elegance • Economy • Environment • Ergonomics

The interface provides synchronous and asynchronous features including chat rooms, message boards, discussion and feedback areas, galleries of works in progress (fig 5), filing cabinets to store larger working files, links and features specific to each working team. Within each team, each participant has their own 'sketchbook' area, updatable homepage (fig 6) and access to their team 'wall' where work is posted for tutors and peers tom leave feedback.

The site has been designed to be easy to use, even for less computer proficient persons, with all images shown as thumbnail previews that can be enlarged by simply clicking. Feedback from evaluations from all projects to date has reported excellent levels of usability and enjoyment.

Figure 5. Omnium latest user-interface (v3.0), showing one of the galleries of student design work.

OP has found through its projects, that at least 50% of participants still use 56K modems. This simple but crucial information has informed OP's decisions to forfeit needless splash-pages, to highly compress all screen images and backgrounds, to avoid clumsy animations and to abstract information to the minimum needed. All have been easy decisions to employ. Certainly, a fast Internet connection is optimal, but if a site is designed responsibly and efficiently, it need not necessarily be a condition.

OP strongly supports the notion of *student-centred* learning which places an educator amongst the participants as opposed to existing in some hierarchical position away from their group. This of course, contradicts the traditional structure of the *design studio* in education with its model of master and apprentice. A model used for most of the 20th century.

The Internet allows design education to progress in terms of encouraging distanced working relationships and give students skills and experience in an emerging new paradigm for design process. The chance to be exposed to diverse ways of working with individuals around the globe, bonding together for short or lengthy periods of time in design collaboration, seems as good a basis for education as one can perhaps find, without physically travelling.

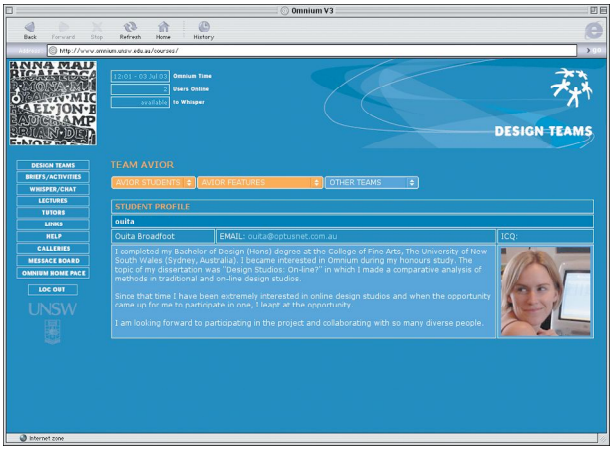

Figure 6. Omnium's latest user-interface (v3.0): a students individual homepage and details

The five stages of the Omnium Project's design process

The design process that has proved successful to date, whilst working collaboratively online, can be divided into five stages. The stages reflect both the need for each individual to feel a part of their online community as well as the need to progress work from a series of loose conceptual ideas to more formalised design solutions.

Stage 1 - Gathering
Individual, personal, emotional and conceptual visual responses and investigations are produced.

Stage 2 - Identifying
Deciding as a team initial directions to take. Evaluating how to progress having reviewed the gathered images and related them to an 'unravelling' brief.

Stage 3 - Distilling
Breaking down ideas from works produced in the earlier two stages so students can critically assess their own process to date. Teams are asked to discard some of their own works for the good of the collective.

Stage 4 - Abstracting
This penultimate stage requires participants/teams to further select and reject elements from their earlier works: simplifying images to attain an essence and a clearer communication of their own brief. Works are passed between team members to be worked on using the interface, finally submitting three works that all members of the group have had an opportunity to contribute to.

Stage 5 - Resolving
Refinement to a point of final presentation. Teams collectively resolve all their previous works into one final team piece. In doing so, they complete a journey of visual and textual dialogue which has lasted several weeks. The final work contains and communicates much of this experience and ultimately it is the experience that is the outcome.

CONCLUDING REMARKS

Through its *framework*, has the Omnium Project achieved its aim to produce a user-friendly interface *(system)* and effective online collaborative working process *(approach)* for designers?

Academic research being undertaken in many worldwide institutions and international conference attention being applied to online design education is now extensive. There is no shortage of papers in proceedings to reference how many believe is the way to proceed. In fact, the wealth of information can become overwhelming to the point where perhaps instinct, common sense and experimentation are the most appropriate way to progress.

After five years of research and development, OP believes it *is* beginning to succeed in this direction. However, it constantly develops and evaluates all projects/interfaces, striving to produce a better user-experience. The Omnium Project takes comfort in the fact it is not merely replicating or copying what has gone before in a 'real' world context, but *thinking* about the Internet's unique potential to be an exciting and enjoyable environment and more importantly, actually making it happen.

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