

# CHAPTER 1

## Glion Colloquium: A Retrospective

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### INTRODUCTION

**T**wo Declarations, nine books, 180 chapters, 2,400 pages published over a 15-year span from 1999 to 2014 — by any standards the outputs of the regular meetings of the Glion Colloquium, held in Glion itself with the exception of one held in California, have provided a major stimulus to new thinking about the future of higher education during a crucial period in its development. Now a tenth book, including this chapter, has been published based on the proceedings of the most recent Colloquium held in Glion in June 2015. Participants in successive colloquia and authors of the contributions to these nine books comprise many of the leading figures in American and European universities and, since 2007, from other world regions, notably East Asia — and also many of the leading higher education researchers and commentators in both continents, as well as business leaders. It is difficult to recall a similar initiative that has been sustained over such a long period and has mobilized so many higher education leaders and thinkers on both sides of the Atlantic. And it is an initiative that is still very much live, current and continuing. As has already been indicated, the tenth colloquium was held in June 2015 and another is planned for 2017.

The scope and scale of the Glion process make it difficult to categorize easily its impact on policy-making and wider influence. Its outputs have been too varied and wide-ranging to be pigeon-holed neatly. What might have appeared a lack of focus has actually provided to be a source of strength, although its centre of gravity has perhaps been on the preoccupations and concerns of the

American research university, and its European analogues, rather than on the mass-participation higher education systems that have developed since 1960. Glion's outputs have also reflected radical shifts in the wider higher education environment, so a tighter focus might have led to premature redundancy. When the first colloquium was held in 1998, the Bologna Declaration had not yet been signed and the modernization of European higher education had barely begun (Bologna Declaration, 1999). On the other side of the Atlantic it was still possible — just about — to believe that the reductions in direct State funding, and resultant rapid rise in tuition, were reversible. The idea of the “public university” was still strong, and the inevitability of a shift towards the idea of a higher education “market” not yet assured. In the middle of the second decade of the 21st century new policy contexts have emerged, and maybe new orthodoxies have become established, that would have been difficult to anticipate at the end of the last century — even if, in many instances, the Glion outputs have been remarkably prescient.

More broadly the successive colloquia have spanned a period of fundamental change in the world's geopolitical and economic orders. The first meetings were held still in the afterglow of optimism generated by the collapse of Communist rule in central and Eastern Europe (and the transition to majority rule in South Africa) and by the move towards an “ever closer union” within the European Union culminating in the 2007 Lisbon Treaty (European Council, 2007). Even the violence of disintegrating Yugoslavia could be diminished if not entirely dismissed as the unfinished business of long-ago Balkan disputes. Francis Fukuyama's claim that we had reached the “end of history” was still almost plausible (Fukuyama, 1992). But a new age of pessimism, and threat, quickly succeeded, dramatically heralded by 9/11. The dormant Cold War was succeeded by a more frightening “war on terror”, which has continued to this day. Its impacts in terms of security and surveillance, and curbs on immigration and creeping xenophobia, have not yet been fully digested.

The global, and most national, economies followed a similar trajectory. The liberalization of the 1980s and 1990s seemed to have produced a new economic order characterized by permanent growth, which had made redundant old cyclical patterns of boom and bust. The way in which the bursting of the dot.com bubble was contained appears as proof of its core stability. The stagnation of the Japanese economy in the 1990s was dismissed as an event in a “faraway country”, with no worrying implications for the more fortunate and favoured nations of the “old” West and its satellite economies. But the global banking crisis of 2008 and subsequent recession shattered these illusions and destroyed that stability. Many countries have lost up to a decade of economic growth. Welfare states have been shrunk by austerity policies (and the public universities and mass higher education systems they nurtured

have suffered correspondingly), while banking and other corporate reforms have stalled. New conceptualizations have been developed in this new age of (public) austerity, such as the shift from the “tax state” up until the 1980s, through the “debt state” of the 1990s and 2000s to the “consolidation state” of the 2010s. The welfare state has gone into (terminal?) decline to be succeeded by a new enthusiasm for “shrinking” the state. More fundamental social changes have resulted, with the young facing diminished prospects compared with their parents (and grandparents). This shift, unprecedented since the days of the early industrial revolution, has impacted especially forcefully on students faced with higher tuition fees.

It is this period of turbulence and transition that is spanned by the Glion colloquia. It was not only a time of transition in higher education; the (decisive?) shift towards more “market” systems has already been mentioned, but perhaps of even greater significance has been the heightened perception of the importance of globalization, and its multiple impacts on universities. It was also a time of fundamental geopolitical and economic (and also social) transformations that are still incomplete. And, of course, these processes, within higher education and wider society, were closely related, as political change impacted on higher education policy (especially in the context of funding) and as science and technology transformed economic structures and possibilities. Both processes are reflected in Glion’s published outputs. However, Glion also demonstrated some enduring continuities, essential preoccupations that have not been changed even by such dramatic events as 9/11 or the banking crash. Higher education generates its own transformations, notably through the dynamism of scientific research, but also evident in wider intellectual developments, that are not simply the impression of external factors, political, economic and cultural, however epoch-making. The Glion colloquia illustrate this dialectic between change and continuity that has always characterized the development of higher education.

The remainder of this paper is divided into three sections. The first is a brief, and inevitably impressionistic, sketch of some of the key changes that have taken place in the higher education environment since the late 1990s. The second is a more detailed discussion of the outcomes of each of the Glion meetings — not forgetting, of course, the Glion Declaration and its later iterations. The third is an attempt to suggest some general themes that can be extracted from the nine books and 2,400 pages, and to relate these themes to other initiatives in higher education. It also offers a provisional judgment on the wider significance of the Glion process, both looking back to its beginnings and evolution and looking forward to how it may be able to contribute to the future evolution of higher education policy, and thought, in Europe and the United States.

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## THE HIGHER EDUCATION ENVIRONMENT

The detailed experiences of American and European universities have diverged over the past two decades, but common themes can also be identified (especially with regard to the dilemmas facing research universities). The major divergences have been that in the United States disinvestment by State Governments has gathered pace with the result that now most major State universities receive substantially less than 20% of their revenue directly from their States. As a result, tuition fees have been increased, although these increases have led to criticism that the middle classes are being priced out of (elite) higher education (National Centre for Education Statistics, 2012). Such criticism is especially strong in the case of private research universities, despite their provision of generous scholarships and commitment to needs-blind admissions. At the same time, similar political circumstances have led to downward pressure on the Federal budget. As a result, the focus on alumni contributions and private and corporate donations has increased. Private for-profit institutions (such as the Apollo Group-owned University of Phoenix), although not in serious competition with mainstream public and private research universities, have also acquired an enhanced role. Despite poor completion rates, they have come to consume an increased share of the budget for student support.

The experience in Europe has been different. Although Government expenditure has declined in proportional if not actual terms, the pressure on university budgets has been less intense. In a few European countries, notably the United Kingdom, tuition fees have been substantially increased. But in most only limited progress has been made towards shifting the funding burden from taxpayers to students (and graduates). Indeed, in Germany tuition fees charged in some *lander* have been abolished. Even in the U.K., state-funded loans have been provided to enable students to pay their fees, so no up-front payment is required and generous repayment terms are available. In some Central and Eastern European countries, notably Poland and Hungary, private institutions have flourished and now enrol large numbers of students. But across Europe more generally private institutions have struggled to establish themselves, posing little challenge to public research universities but rather concentrating on low-cost vocational courses. Instead the major Europe-wide phenomenon has been the Bologna process which began in 1998 as a limited exercise in the harmonization of course structures, student credentials and quality assurance arrangements, but has acquired an impressive momentum of its own (with, again, the — partial — exception of the U.K.) It has stood proxy for the wider modernization of European higher education, and also acquired new links with European strategies for research and innovation. Substantial reordering of the formal relationship between universities and the

State has been undertaken, while new, more selective funding policies have been introduced (of which the *Excellenz* initiative in Germany is the most high-profile, but by no means the only example).

These divergent experiences raise the question of whether European higher education continues to defer to American models of development — in short, whether it is still subject to a process of Americanization — or whether it has developed its own models. Clearly American models were influential in the reform of Swedish universities, despite their (initial) social democratic flavour, in the 1970s and also of higher education in the Netherlands. They were also influential in the reshaping of higher education systems in post-Communist Central and Eastern Europe. Nor can there be any doubt about the continuing attractiveness of American models, pre-eminently that of the research university, in a global context — although whether this attractiveness is greater in Asia than in Europe remains an interesting question. However, the resistance of major European systems to American influences — for example, in France, Germany and Italy — has probably been increased by the development of the Bologna process (despite the fact that it introduced the apparently “Anglo-American” two-cycle bachelors-masters pattern and also the fact that this process has sometimes been interpreted, by student organizations among others, as an exercise in neoliberal marketization).

However, it would be misleading to allow these differences to overshadow the very substantial commonalities of experience between North America and Europe, which were highlighted in the Glion colloquia. These commonalities include: first, funding (but also efficiency); secondly, system design (and, in particular, the role best played by markets) and also the role of the State (if no longer necessarily as predominant funder then as regulator); thirdly, purposes including new research strategies and practices (and, in particular, the strengthening of links to innovation) and new patterns of teaching (in terms both of a tilt towards vocationalism and employability and also of new methods and patterns of delivery); fourthly, burgeoning performance cultures reflected in both officially generated metrics and, perhaps more powerfully, league tables; and, finally, globalization (in both positive terms — for example, the strengthening of global science and global recruitment of academic talent — and more negative terms — for example, growing concerns about immigration and the impact of so-called “fundamentalism”).

### Funding & efficiency

As has already been indicated, the debates about the future funding of higher education have taken different forms, or had different emphases, on opposite shores of the Atlantic. But the key issue is a common one, how to create sustainability funding systems when public funding can no longer be relied upon

and escalating fees encounter growing resistance, whether from students, their parents and graduates or from political parties.

One interesting question is whether Europe will eventually move towards greater reliance on tuition fees — and, therefore, is simply a laggard rather than following a different path. In England higher education was “free” between 1962 and 1998 (for full-time undergraduates and some postgraduates) and few would have anticipated the relatively easy acceptance of student fees (it is important to recognize that fees are still not charged in Scotland and at a lower level in Wales, so it is misleading to talk of a common U.K. approach to student fees and higher education funding). It is possible, therefore, to imagine that other European countries may also lose their present inhibitions about abandoning (virtually) “free” higher education — in parallel perhaps with their acceptance of more flexible labour markets. A second interesting question, more relevant in the U.S., is whether there are limits to increasing fee levels against a background of stagnant middle-class incomes — and, crucially, whether these limits are being approached. It is possible that, over the long haul, any limits may make it difficult to rely on fee income as the main substitute for constrained State support. Student debt already exceeds consumer debt in the U.S., and there is growing political criticism of inflation-busting fee increases. There are even allegations that much of the revenue raised by fees is not used for the (direct) benefit of students (Campos, 2015). On both sides of the Atlantic, universities may have to learn to live with less reliable, and predictable, income streams. “Sustainable” funding may be difficult to achieve.

It is also worth noting that the debate about the funding of universities has been dominated by income, both aggregates and sources, or by volume, the difficulty of funding greatly extended higher education systems that enrol mass student populations. Far less attention has been paid to reducing costs, whether by improving operational efficiency or by increasing productivity. Yet it can be argued that the real funding crisis has arisen more because of the rapidly increasing costs of providing higher education, especially in high-cost research universities than because of curbs on public funding or resistance to higher tuition fees. Although not caught in the same anti-productivity trap as healthcare due to improved drug and other treatment (and, therefore, to longer lifespans), universities have also had to cope with serious cost pressures. Most forms of learning technology have been additional to more traditional forms of instruction, and have added rather than reduced cost. Some alternative, mainly for-profit, providers have been able to target low-cost subjects and develop new lower-cost delivery systems. But that option has not been available to established research universities with reputations for excellence to defend. Encouraging students to behave as consumers, even in the absence of high fees, may also have driven up costs, because of higher

expectations about the standard of facilities. This process is still perhaps more advanced in the United States, but the same pressures can be observed in Europe, driven to some extent by league tables. Finally many universities are “over-trading” in research, despite their best efforts to secure funding that reflects the full economic cost of research. Under the conditions that prevail in modern higher education systems, and especially in research universities, market competition may have had a tendency to drive up costs rather than produce greater efficiency.

### **System Design & the Role of the State**

It has become commonplace to argue that the mass, and largely public, systems of higher education within which institutional missions were clearly demarcated through “master plans” and similar policy and legal instruments, which dominated the second half of the 20th century, are in the process of being superseded in the early 21st century by market systems, often with substantial involvement by private for-profit institutions and in which even public institutions are increasingly taking on entrepreneurial roles.

At best this is too simple a characterization. First, higher education systems have proved to be remarkably resilient, and institutional landscapes as remarkably stable. These systems have been modified by new funding patterns, generally the result of shortfalls in public support, and also by policies that have made it easier for alternative providers to compete with public (or not-for-profit private) universities. But the higher education systems established in most U.S. States, and the institutional patterns in most (Western) European countries, that date from the second half of the 20th century, are still recognizably the same. It seems premature to conclude that “systems”, whether highly structured as in parts of the U.S. or evolutionary as is more generally the case in Europe, have had their day and been replaced by free-wheeling markets.

Secondly, the impact of market-like policies has been strongly differentiated depending on the type and level of institution. In most cases research universities form the elite components of their national systems, both in the make-up of their student bodies and their scholarly and scientific prowess. As such they have been to some degree “above” any market competition that may have influenced the behaviour of mass-access and teaching-oriented institutions. Although, as has already been indicated, their income streams have been re-proportioned, total budgets have continued to increase. The market competition they have experienced, in particular for academic talent but also for reputation, has not been contained with national systems but has been played out on an international stage. Although most have become more involved in various forms of entrepreneurial activity — for example,

top-end executive programmes, research commercialization and technology transfer — the major stimulus has as often come from the State as from the market sector.

Far from retreating, the State has often played a more activist role with regard to universities. Public funding may have been constrained, although the degree to which this has been generally true can be questioned. International statistics do not support the idea that the State has disinvested in higher education and research on a significant scale, at any rate as measured in GDP shares. And, as has been pointed out, substantial sums of publicly generated resources continue to flow to universities through a number of routes. However, it remains true that conventional forms of public funding have been unable to keep pace with the needs of higher education. But, if the State has a more limited role as a (direct) funder of universities, in many countries it has increased its influence in two other respects.

The first is as the orchestrator of national, or Europe-wide, innovation strategies in which research universities in particular are expected to play pivotal roles. Much of the funding may come from non-State sources, but the State has often been the prime mover of such strategies. The second is as a regulator. Already the development of mass systems with a diversity of institutional types and missions had placed greater emphasis on explicit quality measures — now supplemented, of course, by the drive to provide more transparent “customer” information to support market-like policies in some countries. The opening-up of higher education to new and alternative providers has also created a greater need for the more explicit regulation of the more mixed public-private higher education systems that are emerging. The devolution of administrative responsibilities once discharged by State bodies to universities may have had a similar effect. In the 21st century the State has typically taken over a number of roles, some of which could be said to create conflicts of interest — still as a substantial funder of public institutions, as the dominant designer of higher education systems, as the orchestrator of innovation strategies, as regulator, as an (over-mighty?) “customer” acting on behalf of students and other stake-holders. Yet the plurality of State roles has yet to be recognized in terms of a renegotiated relationship with higher education.

### **Purposes — Teaching & Research**

In the domains of both teaching and research, there appears to have been a sharp shift towards viewing the core purposes of higher education in more instrumental terms. Students are now more likely to be regarded, and treated, as “customers”, even when they are not expected to pay significant tuition fees. Universities have been redefined as “service” organizations. At the same time the quality of graduates is now more likely to be defined in terms of their

“employability” in the labour market. Both trends have been contested, of course. Critics of the trend towards treating students as “customers” point out that, even if a university education can reasonably be regarded as a “purchase”, it is nearly always a one-off “purchase”; that students cannot be held to “know best” (they have come to be educated not to consume); that students must themselves contribute to their own learning through complex processes of peer learning and the co-production of skills and knowledge. Critics of the heightened emphasis on “employability” as the major success criterion point out the naivety of believing that most mismatches in the labour market can be resolved by “supply-side” solutions; and also that the 21st-century graduate labour market has become increasingly fragmented with some graduates (typically those with already extensive social capital and who have attended elite universities) able to look forward to successful, and lucrative, careers, while other graduates face insecure and fractured futures (Brown, Lauder & Ashton, 2008). Yet, despite these powerful counter-critiques, both trends appear to have become well entrenched — not only in political discourse, but in institutional practices and priorities.

A similar process can be observed with regard to research. The centrality of higher education, and in particular of research universities, in the global knowledge economy has led not only to heightened emphasis on the contribution universities can make to meeting the demand for highly skilled professional workers, but also an equally strong emphasis on the contribution that research can make to innovation (and so to economic growth) and to social well-being. Re-conceptualizations of the processes of knowledge generation, such as powerful utility of the “triple helix” of State, industry and universities or the evolution of more distributed and reflexive forms of so-called “Mode 2” knowledge production, have emphasized the closer linkages between university-based research, technology and innovation (Etzkowitz, 2008 and 2014; Gibbons *et al.*, 1994; Nowotny, Scott & Gibbons, 2001 and 2003). Where once scientific research (and scholarship) were seen as producing economic and social benefits through a complex chain of mediating links, now the tendency is to see the relationship between research and benefits in terms of less complicated, and only lightly mediated, links. This is apparent in universities, with the growth of science and technology parks, spin-in and spin-out companies and rebalancing of pure and applied research (and also, perhaps, the emphasis on recovering the full economic cost of research). It is also apparent in Government, with the increasing popularity of integrated innovation strategies and assessments of research that embrace not only its scientific quality but also its “impact” (to use the language employed in the U.K.’s Research Excellence Framework, but also a feature of other selective funding regimes). Once again, the objections to over-instrumentalized research policies — such as the traditional assertion that universities are best at curiosity-driven

research, or that linear accounts of research-technology-innovation chains are too simple and even naive — appear to carry little weight. The paradoxical result is that any enhanced autonomy that research universities may gain from more diverse funding systems for teaching may be more than cancelled out by their close conscription within State-directed innovation systems.

### Performance, Metrics and League Tables

The fourth trend is towards much greater emphasis on the measurement of performance. This can be observed at many levels — from management of the performance of individual academic staff through setting quantifiable targets, through departmental budgets (and internal institutional allocation methodologies) determined increasingly by metrics, and the growth of contract funding in research (a trend powerfully reinforced by the development of more entrepreneurial models of higher education), to the growing popularity of whole-institution “contracts” between universities and state authorities. These trends are apparent within most higher education systems. Indeed, some of the best examples of explicitly contractual funding arrangements between universities and the state can be found in Western Europe (where public funding of higher education has remained at a high level — perhaps not a coincidence?)

However pervasive the use of performance measurement has become at individual, departmental, institutional and national levels, the limits of metrics such as citation scores and impact factors have been recognized by most public authorities. A recent report in England rejected the idea that such metrics could replace more traditional forms of peer review in subsequent REFs (Wilsdon *et al.*, 2015). But no such restraint has been shown in the proliferation of league tables, most of which have been produced by media and other commercial organizations (although one of the most prominent has been produced by a Chinese university, Jia Tong University in Shanghai) (Rauhvargers, 2011; Marope, Wells & Hazelkorn 2013; Marginson, 2014). Of course, rankings are not new. Those produced by *US News and World Report* date back several decades. Nor, of course, is the unofficial ranking of individual professors, although this has been given a new intensity with the rise of the internet and social networking. However, league tables have acquired a new influence over institutional behaviour, particularly perhaps in the case of research universities because a ranking in the top 50, 100 or 200 is crucial to their status and success. And not only universities but also governments. In most respects, “official” metrics are now overshadowed by “unofficial” league tables.

There are several sources of this enthusiasm for performance measurement, metrics and (most of all) league tables. But perhaps the most significant are the rise of so-called “audit society”, a phenomenon that can now be observed

throughout both the market and public sectors and which some writers have attributed to the deconstruction of older notions of trust rooted in professional expertise (Power, 1997). Almost as significant, and closely linked, has been the simultaneous rise of a “market” culture within most higher education systems, as has happened more widely across the public sector (such as the privatization of energy and transport companies), which has required the development of much stricter accountability regimes.

## Globalization

The final trend that has affected all higher education institutions, whatever their differences in funding or legal status, has been globalization. The impact on research universities, because of their international reach and reputations, has perhaps been greatest and most direct. However, “globalization” is as often employed as a media mantra as a precise analytical tool. Even when it is more fully described, it is generally used to denote the impact of the liberalization of markets — financial, labour, all kinds, the “abolition” of time and space, the spread of global “brands” — in short, a single path of (inevitable and benign) development. In reality globalization is a bundle of phenomena that impact in different ways on universities.

The most obvious is the flows of international students, and academic staff. The recruitment of international students may provide a key economic input for those institutions that charge high tuition fees and, across North America and Europe, also provides academic capacity that might be difficult to sustain if it relied solely on “domestic” demand. This is especially true in the case of Ph.D. students and post-doctoral and early-career researchers. The higher education and research systems in these countries depend critically on the import of academic talent — from Asia, the Middle East, Africa and Latin America. These imbalances not only raise important issues related to equity and balanced development (and the avoidance of geopolitical disorder), but also questions about how long America and Europe will be able to continue to import academic talent on the required scale. It is already clear that several Asian countries may soon cease to export students (and staff) and may instead need to become importers to feed the development of their dynamic university and research systems. At the very least, these flows are likely to become less unbalanced in future.

A second manifestation of globalization is the growth of offshore campuses. Nottingham in the U.K. and New York University in the U.S. are perhaps the most active and successful institutions in developing transnational education. But very many American and European universities are now engaging in less full-blown international activities — such as the validation of teaching programmes in other countries or membership of international networks of

(usually like-minded and equal-rated) institutions. Transnational education raises a number of complex issues — legal and jurisdictional, financial and organisational, cultural and scientific and, of course, ethical. Yet its attractions are obvious — as an alternative form of globalization when (and if) more traditional flows of international students, scientists and scholars reduce.

Two final, perhaps less desirable, aspects of globalization have also become more prominent. One is the explosion of global league tables that has already been discussed. The second is the impact of uglier forms of globalization on universities and research — the rise of so-called “fundamentalism” which, while rejecting the liberal and secular values of the “West”, nevertheless employ global technologies (and “brands”) to promote their cause; but also the rising tide of opposition to immigration in many European countries and also, although less categorically perhaps, the United States. The rise of “fundamentalism” is a sharp reminder of the divorce between processes regarded in America and Europe as inextricably linked, the modernization of society and the economy through economic development and modernity (or the political and cultural values associated with the Enlightenment). This divorce had already become clear in parts of East Asia, notably China. It may also have been present in the so-called “culture wars” notably in the United States on issues such as climate change, evolution and stem cell research. The rising tide of opposition to immigration has also been a sharp reminder that the international flows of students, scientists and scholars, so critical to the success of many research universities, are only one part of much larger flows of low-skilled migrants and refugees.

## THE GLION PROCESS

### Beginnings and ends: 1998 and 2013 compared

The first Glion colloquium was held in May 1998, and its proceedings were published in *Challenges Facing Higher Education at the Millennium*, edited by Werner Hirsch and Luc Weber, in the following year (Hirsch & Weber, 1999). This represented the starting point of the Glion process. The ninth Glion colloquium was held in June 2013, and its proceedings were published last year in *Preparing Universities for an Era of Change*, and the editors were Luc Weber now joined by Jim Duderstadt (Weber & Duderstadt, 2014). It is interesting to compare not only the content but also the “tone” of the two colloquia and their published proceedings to determine what has changed — but also what has stayed the same. For that reason the 1998 and 2013 colloquia perhaps deserve more extended analysis than the intervening meetings.

The first thing that is striking is the similarity of titles — challenges and change. This sense that universities have been subject to a process of almost permanent revolution, which far from abating is becoming more intense (and

also more volatile and less predictable), is now pervasive. It has been ground into the mentality of modern higher education system, to such an extent that evidence of continuity, and enduring values, is often ignored — although this too can be glimpsed throughout the Glion process.

Right at the start in the first colloquium the organizers, and orchestrators, nailed their colours to the mast of change. They contrasted two rival views of how higher education should approach the future — the first emphasizing the need for continuity and stability (if not, quite, for universities to be left alone); and the second, which they endorsed, adopting a more activist approach embracing “major affirmative steps” (in short, for universities to embrace future challenges). The second approach has become key to the ethos of Glion in the intervening years. But, at the first and subsequent meetings, the tension between evolution and revolution, which echoed this contrast between stability and active engagement, remained. Change may have been inevitable, but what form would it take? For example, James Duderstadt, in an important contribution to the first volume, argued that U.S. higher education faced two starkly different futures — a pessimistic scenario he labelled “massive restructuring” (market-driven mediocrity, unbundling of core university responsibilities and what would now be termed “commodification”); and an optimistic scenario he labelled a “culture of learning” in which existing institutions would rise successfully to meet new challenges, particularly with regard to the learning needs of their students.

Helpfully Luc Weber, one of the key Glion orchestrators, summarized the key challenges identified by the participants in the first colloquium. These he grouped under nine headings:

- Environment (the impacts of globalization and technology were especially emphasized);
- Mission (the need for responsive and responsible universities able to open up new publics and industry, while continuing to focus on producing critical citizens rather than just expert “technicians”);
- Challenges to research universities (notably the growing tension between teaching and research, and the relentless drive towards specialization in research in the quest for excellence);
- Competition (not only “external” competition from rival, for-profit, providers, but also “internal” competition generated by the commercialization of teaching research);
- Students and teaching (focussing on the lack of progress towards equal, or fair, access despite mass expansion, and the challenges of lifelong learning);
- Academic profession (the changing role of teachers as what would now be termed “facilitators of learning”, an over-faithfulness to disciplines and the tension between specialization and multi-disciplinarily);

- Finance (declining traditional, especially public, funding quickening the search for alternative income, and the need to curb escalating costs);
- Governance (an endorsement of “shared governance”, but with stronger leadership, streamlining decision-making and, for State universities, greater autonomy).

In this manner the challenges to be met by “major affirmative steps” were set out right at the start of the Glion process. It is a list that has clearly stood the test of time. But there may also have an intriguing shift on “tone”. In 1998 Frank Rhodes expressed optimism in his chapter on the “The New University”. In it he offered an ideal portrait of the new American university able to reconcile shared governance with strong leadership, private funding with public responsibility, campus localism with global reach, autonomy with networks of partners, a strong knowledge and research focus with student centredness, new technology with traditional community, quality and excellence with efficiency and a professional and expert orientation with humanity. Today, perhaps, it would be more difficult to feel so confident about the possibility of such reconciliations. Instead there would be greater fears that these competing (contradictory?) forces would fragment the university itself.

The latest volume (apart from the present book), the proceedings of the 2013 colloquium, perhaps demonstrates this shift towards pessimism. Although not going so far as to characterize the research university as an endangered species, it highlights some of the key threats to its vitality. These include ageing populations in those world regions where research universities are concentrated, especially in Western Europe but also in North America (where overall population growth conceals reductions in shrinking proportions of the social elites with which research universities have been most closely associated); new technologies that simultaneously enable and disrupt (for example, obliterating temporal and spatial constraints and in the process challenging traditional paradigms of learning); funding challenges produced by the rising cost of teaching and research and shrinking tax bases resulting from slower economic growth and taxpayer resistance (and, at the same time, growing sensitivity about above-inflation increases in tuition fees); and the impact of global markets that subvert organizational norms and structures by promoting out-sourcing and, more radically, the unbundling of academic activities once regarded as inextricably entwined.

Taken together these threats may pose an existential challenge to research universities, despite their dominance of global league tables. In the first session of the 2013 colloquium, a panel of three university leaders — James Duderstadt (Michigan), Heather Munroe-Blum (McGill) and Howard Newby (Liverpool) — reflected on the recommendations made in a gloomy report from the National Academies of Science, Engineering and Medicine in

the United States which identified a triple abandonment — by Government no longer committed to investment in university research; by corporations no longer willing to sustain world-leading research capacity themselves while relying on under-funded university capacity; and by the universities themselves unable to achieve the levels of efficiency and productivity required to remain globally competitive. In short, a gloomy prognosis to which the academies' remedies — more coherent innovation strategies, an end to the erosion of public funding, increased efficiency, streamlined regulation, reforms in graduate education and more emphasis on science, technology, engineering and mathematics — seemed as much exhortatory as practical.

Another contribution at the 2013 colloquium by Hunter Rawlings, revealingly entitled “How to Answer the Utilitarian Assault on Higher Education”, struck an even more pessimistic note. In it he attempted to answer widespread criticism that large numbers of American college students appeared to be achieving only limited “learning gains” as measured by standardized tests — and therefore often lacked the skills required in the expanding graduate labour market. Paradoxically this — alleged — under-achievement had not been accompanied by any significant decline in the earnings premium that graduates enjoy. This may suggest that this pervasive discourse of “crisis”, not confined to the United States, reflects not so much the economic realities of the labour market, but the rise of political hostility towards higher education, fuelled by alarmist media interventions. Recently *The Economist* devoted a special report to higher education with the provocative title “The whole world is going to university. Is it worth it?” (*The Economist*, 2015). There is only limited evidence that the employers of graduates support an even tighter focus on vocational skills and competences, at any rate as demonstrated through their hiring preferences.

However, the shift from a largely supportive political environment towards a more sharply critical one is a phenomenon that many higher education systems in North America and, to a more limited degree, Western Europe have experienced (but which is largely absent in South and East Asia). This may pose particular challenges to universities, especially established research universities, which have traditionally regarded themselves as closely aligned with political and social elites and state agencies and structures — “insiders”, it might almost be said. Perhaps this loss of “respect” is as important a factor in explaining any feelings of disenchantment, and contributing to a sense of “crisis”, as any state disinvestment in higher education (which, although real enough in parts of the United States, has not really been experienced in Europe where higher education budgets have generally suffered much less than other publicly funded services — and is certainly not evident in China, Korea and other Asian countries with rapidly developing higher education systems to match their dynamic economies).

Generalizations are certainly treacherous, although potentially they can be illuminating. However, a comparison of the content, and, crucially, “tone” of the first and the latest Glion colloquia suggests three tentative conclusions.

- The first is that, now as then, higher education systems in general, and research universities in particular, are caught up in a process of ceaseless change — to which they can respond either minimally or with enthusiasm (the latter being the strong preference of most Glion participants, although not necessarily of the academic/faculty colleagues across all disciplines, notably the humanities and some social sciences);
- The second is that American universities appear to be facing greater, and perhaps more hostile, political challenges than their European peers — more immediate threats to funding and also sharper public criticism. They are more on the defensive — and this cannot be fully accounted for by the popularity of polemical literature in the United States compared with the staid literary traditions of Europe; nor perhaps by the fact that in Europe the future of higher education has remained an essentially second-order political issue. At first sight this is a paradoxical conclusion to reach because American research universities continue to dominate global league tables, and their scientific and scholarly excellence and productivity are probably greater than at any time in their history. Perhaps, against the odds, the Bologna process has been able to breathe new life, and confidence, into European universities;
- The third, and incontestable, conclusion is the clear evidence of the rise of Asian higher education. This is reflected not only in the increasing number of Asian participants and contributors in more recent Glion colloquia (which has mirrored growing Asian participation in most other international higher education forums) but also the unmistakable sense of optimism prevailing in, and political and public support enjoyed by, most successful Asian universities.

### **Evolving agendas 2000-2011**

The intervening six colloquia, and proceedings, covered a wide range of topics. Their titles, and the sequence, tell an interesting story. First, in 2001 came *Governance in Higher Education*, with the suggestive subtitle “the University in Flux”, which concluded with the Glion Declaration 2000 (Hirsch & Weber, 2001). A year later the title chosen for the book based on the preceding colloquium was *As the Walls of Academia are Tumbling Down*, a series of essays on the opening-up of the research universities (Hirsch & Weber, 2002). In

2004 the theme was *Reinventing the Research University*, a title that clearly described the preoccupations of the preceding colloquium (Weber & Duderstadt, 2004). Two years later the focus had both narrowed and broadened out — *Universities and Business: Partnering for the Knowledge Society* (Weber & Duderstadt, 2006). In 2008 the focus was wider still, on *The Globalization of Higher Education* — although this topic had already been covered in contributions to earlier colloquia (Weber & Duderstadt, 2008). In 2010 it was back to the economy — *University Research for Innovation* (Weber & Duderstadt, 2010). Then in 2012 a new priority emerged, reflecting its urgency and topicality — *Global Sustainability and the Responsibility of Universities* (Weber & Duderstadt, 2012).

Each colloquium built on the discussions held in the preceding, creating both a strong sense of continuity of issues (and concerns) and also an impressive momentum. But the arc of the colloquia, which began and has ended (for the moment) with change and challenges, also seems to indicate an increasing preoccupation with the external environment rather than focusing on the internal dynamics, and dilemmas, of the research university. Although the first three colloquia certainly addressed broad topics, notably the lowering of the “walls” between research universities and their enveloping environment and consequently the need to “reinvent” them, the focus was an inward gaze, on how research universities needed to adapt. The following four colloquia had a wider, more outside-in perspective — on links with industry, globalization, innovation and sustainability. It may only be coincidence that this shift coincided, approximately, with the collapse of the neoliberal world order (rather as the late 1970s and 1980s witnessed the collapse of the post-war welfare-state Keynesian world order).

### **‘Governance in Higher Education’**

The second colloquium in 2000, the only one to be held outside Glion in Del Mar in California, focused on three major themes — recent trends in university governance, fundamental principles of governance and ways in which governance might be improved — all against the background of the evolving mission and responsibilities of the research university in the new century discussed in an opening presentation by Frank Rhodes, President of Cornell for 18 years and a Glion stalwart. Governance was considered both in a broader sense — the role of the President (Rector, Vice-Chancellor) and other executive managers, as well as the ebb and flow of “shared governance” with faculty members was included, along with the responsibilities of university boards — but also perhaps a narrower sense — although the governance of European universities was discussed, the focus was on the governance of U.S. research universities (conveniently so perhaps as the next decade would

see major changes in many European countries as Ministries loosened their grip on universities, while patterns of governance in the U.S. have been more stable).

Among the dilemmas identified during this colloquium, two were especially notable. The first was whether governance in higher education, and in particular of research universities, was — or should be — distinctive and different from other types of public and social institution. The consensus reached is perhaps best summed up as “yes — but”. Yes, because there was general agreement that universities flourished best with the minimum possible intervention from external stakeholders, especially the State (a view that was perhaps easier to sustain in 2000 than it is 15 years later). But, because it was accepted that university governance was highly complex — embracing both formal legal instruments and informal patterns of behaviour; multi-layered (institution and department); and with multiple actors (students — and alumni, faculty — junior as well as senior, administration — and not only the President/Rector and their senior colleagues, boards — external and internal members, State authorities — as funders and/or regulators, employers and communities). The second dilemma was whether it was possible to devise a general theory of university governance. Luc Weber, for example, discussed the application of lessons from the economic theory of federalism, such as the well-established European principle of subsidiarity. Henry Rosovsky preferred a more pragmatic approach — not too much democracy, a commitment to shared governance and recognition that governance structures were simply a means to the true end, the enhancement of teaching and research. But there was general agreement that getting governance right, and improving decision-making, provided a key enabling framework within which universities could respond to the challenge of change.

### **‘As The Walls of Academia are Tumbling Down’**

The third colloquium was held back in Glion in the summer of 2001. Its theme was the increasing permeability of the university, hence the somewhat worried title. This title may have reflected some ambivalence about the degree to which this should be resisted or welcomed, although the general will among the participants (and the contributors to the subsequent book) leaned towards the latter (more optimistic) view. This permeability was seen as both an external and internal phenomenon — external in the sense that universities, and especially research universities, were now increasingly regarded by both the State and industry as key instruments of innovation (which was reflected both in additional scrutiny, unwelcome perhaps, but also increasing largesse, in the form of sponsored research); and internal in the sense that the growth of interdisciplinary courses (and multi-disciplinary research) was

tending to erode traditional departmental boundaries and also that the application of new technologies was beginning to challenge existing divisions of labour between teachers, their students and those responsible for providing learning support.

Research universities were now best regarded as part of complex networks, notably with regard to applied research and technology transfer but also life-long learning. James Duderstadt presciently considered the future of the university in the digital age — a theme which, of course, has assumed every greater salience as the years have gone by. Luc Weber wrote about the universities' responsibilities in an age of an increasing competition — another theme that has gone from strength to strength (and now has become a dominant motif of both policy discourse and institutional practice in contemporary higher education). The potential, and dangers, of new alliances between universities and high-technology companies were discussed by Werner Hirsch — and concrete case-studies of such alliances were offered from ETH in Zurich and also San Diego. Whatever residual regrets there may have been in the overthrow of the “walls of academia”, there seemed to be little nostalgia for the idea of the university as an ivory tower. The 21st century had firmly arrived. This third colloquium, like the second on governance, set an agenda — a list of topics and themes that would be developed later in the Glion process.

### **'Reinventing the Research University'**

The fourth colloquium was again held in Glion two years later. The title chosen for the subsequent book proclaimed its radical agenda — not to restore or renew or even to reform but to reinvent the research university. As with governance there were clear differences between America and Europe. Just as U.S. universities, public or private, had powerful governing boards while formal organs of university governance were less well developed in most of Europe, so the research university was a familiar and established category in the U.S. (and, indeed, formally enshrined in the influential Carnegie classification of institutions — even divided into two divisions) while in Europe the emergence of an elite group of research intensive universities was — and perhaps still is — more tentative. So key contributions came from Robert Zemsky and James Duderstadt, offering an American perspective, and Luc Weber and Pavel Zgaga, illuminating the rather more complex European perspective.

It is somewhat of a simplification — but perhaps the challenge facing American research universities was one of reform, to enable them to meet new post-millennial challenges, while in Europe the prospect was of a more radical process — of invention as much as reinvention. The — comparative — underdevelopment of Europe's leading universities was also raised by Frans van Vught in a challenging contribution on “Closing the European

Knowledge Gap? Challenges for European universities in the 21st century”. This, it should be remembered, was two years before European heads of government committed themselves, hubristically as it turned out, to making Europe the most advanced high-technology region in the world by 2010 in the Lisbon Declaration. This specifically European perspective was complemented by Wayne Johnson’s expansive discussion of new “knowledge chains”, in which of course research universities featured prominently, in his chapter on the globalization of research and development. It is also worth noting that another contribution from Zemsky raising for the first time in the Glion process a topic that is now of consuming, even obsessive, interest in worldwide higher education, the need to classify (and rank?) universities according to their functions and market positions. In both van Vught’s and Zemsky’s (second) contribution, key contours of future policy debates were first sketched.

### **‘Universities and Business: Partnering for the Knowledge Society’**

The fifth Glion colloquium in 2005, once again held overlooking Lake Geneva, had a broader range of participants, which is reflected in the subsequent book published a year later. University leaders from both sides of the Atlantic were again there in force (one of the strengths of the Glion process has been the remarkable continuity of university participants, offering a fascinating insight into how ideas have developed within this leadership cadre). But they were joined by key industrial leaders — notably Peter Brabeck-Lemathe, chief executive and president of the leading Swiss (and multinational) company Nestlé. This twin-track approach was highlighted by two rather than one summary chapters, from Brabeck-Lemathe (based on an after-dinner talk he gave at the symposium) as well as from the editors, James Duderstadt and Luc Weber. But it was perhaps the title of one chapter, by William Wulf, “A Mosaic of Problems” that best summed up the eclectic range of issues under discussion — a case-study of regional development in Austin, Texas, and Lausanne in Switzerland; the threat of declining demand for science and engineering courses, and best practice in business-industry collaboration (by Richard Lambert, a former Editor of the *Financial Times* and later the Director General of the Confederation of British Industry, who headed a national enquiry into this very topic). Bertie Andersson also offered a critical analysis of European research policy which in the wake of the Lisbon Declaration had acquired an urgent topicality. However, no one challenged the need for closer university-industry links, although many acknowledged the difficulty of exploiting them to the full. The banking crisis, and subsequent economic recession, still lay in the future.

In their concluding summary Duderstadt and Weber highlighted both the common issues that research universities faced on both sides of the Atlantic

— for example, declining demand for science and engineering courses (for which they, like many commentators held secondary schools responsible) — and also the, perhaps more significant, differences. The theme of European “underdevelopment”, first raised by Frans van Vught in the previous colloquium, was reintroduced. In their view three specific challenges faced European universities. The first was the need to accept some degree of formal stratification; not all universities could aspire to research eminence without diluting the financial, scientific and human resources that could be made available. The second, which followed from the first, was the comparative lack of comprehensive research universities with a critical mass of excellence across most disciplines; to a greater extent than the U.S. with its tradition of big land-grant State universities and private “Ivy League” institutions, the European university landscape was populated by specialist institutions such as ETZ in Zurich or the London School of Economics. The third, which followed from the first two, was the need to create an environment that encouraged “world-class” institutions (incidentally the first time that this now ubiquitous label was employed in the Glion process); the clear implication was that uniform State funding regimes needed to be supplemented — by alternative income streams (including student fees).

### **‘The Globalization of Higher Education’**

Globalization, its opportunities, challenges and discontents, had featured in several earlier Glion colloquia. But it was the primary focus of the sixth colloquium held in 2007. As a result the range of participants, and later authors, was extended beyond the U.S. and (Western) European participants who had been the stalwarts of these earlier colloquia. Australia, Japan, Russia, China, Singapore, Korea and Brazil were all offered as case-studies. The colloquium itself was an (even more) comprehensive event. Eighteen nations, and all five continents, were represented. But this did not mean that perennial concerns were forgotten. Two contributions, by Georg Winkler and Patrick Aebischer and Jean-François Ricci, reprised worries about the under-development of (continental) European universities in the emerging, and intensifying, global competition. Were they “falling behind”, and were their organizational patterns unsuited to meeting the challenges of globalisation? Concerns were also expressed about the difficulty facing American universities in balancing global, regional and national demands. Robert Zemsky even asked, provocatively, whether “our reach has exceeded our grasp” in taking a second look at higher education as a global enterprise. But the general flavour of the discussion, as represented in the subsequent book, was that universities were still behind the curve, comfortable with familiar processes of internationalization (such as flows of international students, scientists and scholars) but troubled by the potentially much more disruptive influence of globalization.

Nevertheless most contributors accepted that globalization was pre-eminently an economic and technological phenomenon, the development of world markets based on global divisions of labour (and powered above all by advances in information technologies). The cultural and geopolitical aspects of globalization were only hinted at. Only one contributor, John Waterbury, looked at the dark side of globalization and discussed how universities should respond to violent situations. This was perhaps the first occasion in which the shadow of 9/11, and subsequent conflicts in Iraq and Afghanistan, had fallen on the Glion discussions — but only fleetingly. On this wider canvass should universities simply confine themselves to being responsive, meeting the need of the high-tech global knowledge economy for skills and research, or should they seek instead to be responsible by reasserting core values, not only values of science and reason but also human and social values as well? This key question was filed under “future business”.

### **‘University Research for Innovation’**

Ten years on from the original colloquium participants in the ninth colloquium, and contributors to the subsequent book, published in 2010, were in retrospective mood. Frank Rhodes compared and contrasted the challenges facing research universities at the beginning of the Glion process in 1999 with the challenges they faced a decade later. Nothing had happened in the intervening period, in his view, to doubt their centrality in the society, economy and culture of the 21st century, and he continued to reject Peter Drucker’s prediction that they would become “relics”. But he accepted that the research university now had to operate in a colder climate — in terms of external forces such as heightened geo-political (and military) conflict and post-crisis/post-crash economic environment, but also in terms of threats to funding and changing student constituencies. However, he remained an optimist — “adversity as opportunity” was a favourite phrase — and that optimism was reflected in the second Glion Declaration on “Universities and the Innovative Spirit” which he took the lead in drafting.

Although the focus was on university research for innovation, the actual scope was much broader than the university-industry links that such a title might have suggested — in two senses. First, alongside topics that might have been expected — the role of industry in fostering innovation, a review of national innovation strategies and (in greater detail) an account of the German Excellence initiative — broader topics were also covered. These included a, perhaps counter-intuitive, emphasis on scientific curiosity and the transformative impact of fundamental research, from Jean-Lou Chameau and Carol Carmichael (both from CalTech), a discussion of the dynamic between *bildung* and innovation, and an assertion that community engagement was a

powerful catalyst for social innovation. Secondly, the focus was no longer so tightly on North America and Western Europe. Latin America, Singapore and Saudi Arabia were also included as case studies, the last in the form of a detailed account of the development of the King Abdul Azziz University of Science and Technology. Wider still, perhaps, Jamil Salmi discussed the challenges of establishing “world-class” (that label again) universities in the developing world. Finally the fundamental character of innovation was discussed in three contributions, indicating that in the fluid 21st-century world it could not be taken as an unproblematic “given”.

### **‘Global Sustainability and the Responsibilities of Universities’**

The second-to-last Glion colloquium focused on sustainability — in its widest sense to embrace not only climate and environment, usually regarded as the key topics, but also the economy, poverty and health. In the first contribution Luc Weber emphasized the key role played by the humanities and social sciences to address these wider concerns. Sustainability was no longer an issue to be addressed through cutting-edge science and technology. It was also a state of mind, even a core value (especially perhaps among the latest generation of students). This highlighted one of the key contrasts, both of which concerned timescales. The first was the tension between older generations who had benefited from 20th-century economic growth (expressed through material culture) who were reluctant to attach the same priority to sustainability as their children (or grandchildren). The second was the difficulty of reconciling political timescales, often limited to little more than five years, with the longer, quasi-geological, timescales over which topics such as climate change operated, even as they accelerated to their irreversible conclusions. In his contribution Georg Winkler emphasized the breadth of sustainability challenges by pointing to those identified by the European Commission — climate change, health care, ageing populations and finite resources (for example, in energy and water).

Given the breadth of the colloquium’s focus on sustainability it was inevitable that an equally wide range of topics was addressed. Some were familiar (and “safe”?), such as the contribution that university research can make to understanding and solving some of these problems. Others were equally familiar (but perhaps less “safe”?), such as the role that universities might play in educating global citizens who, of course, were likely also be passionate advocates for sustainability which might potentially bring them — and universities — into sharper conflict with powerful political and industrial forces with a vested interest in short-term perspectives (and profits!) A third set of topics was perhaps more self-interested — how to ensure that research universities were themselves sustainable in terms of political, and public, support and of

funding. The sheer breadth of topics inevitably made it difficult to produce neat and coherent answers. Sustainability comprises too many strands — scientific, technical, political, economic, cultural and even moral. But the colloquium succeeded not only in highlighting this as one of the most important, if not the most important, challenges facing research universities, but also in illuminating these many strands.

## COMMON THEMES AND CONCLUSIONS

The most important, and lasting, achievement of the series of Glion colloquia is that it has amounted to more than just a series of seminars; it perhaps deserves to be labelled a “process”, not of course in the scale of significance of the Bologna process (with which, intriguingly, it has been contemporary), but nevertheless a sustained and coherent intervention in our shared understanding of the challenges facing higher education in the 21st century. This is true in at least three senses.

- First, at the core of Glion has been a group of influential individuals who have been active participants and contributors at several seminars (and in a few cases throughout). As a result it has been possible to observe the evolution of their views and perspectives over a period of more than 15 years. Such consistency of key personnel is unusual. One of the criticisms of the way in which higher education policies have been developed over the past two or three decades in many countries is that policy “memories” have become more and more foreshortened. The consequences of this foreshortening have been not simply the direct loss of experience — supposedly “new” initiatives often grind out old themes and are sometimes doomed to the same disappointments — but also perhaps an erosion of core values, that sense of the fundamental qualities and characteristics especially of research universities. This may have contributed to the divisions between faculty members, who retain this understanding and allegiances, and the policy and management “class” for whom everything is (always?) in flux (and may even make of a virtue of their ignorance of the past). The Glion process has bridged that divide;
- Secondly, Glion has offered a commentary on the tensions, but also synergies, between continuity and change. It is possible to regard the colloquia as a sustained conversation on this theme, the dialogue between what must endure and what must change. Right at the start the ambition was to confront challenges positively and creatively, but without abandoning the bedrock values of the research university. The titles of the individual colloquia signal an emphasis on challenges

to universities to change and adapt to new circumstances (although their novelty can perhaps be exaggerated — are the pressures to respond to globalization, and the urgent need for universities to “service” the emerging global knowledge-based economy, really more pressing and urgent than the massive social pressure experienced by higher education between the 1950s and 1970s?) However, many of the individual contributions make the case for continuity, not in a defensive or conservative sense but simply in a spirit of sustaining the university’s (perhaps unique) capacity to transform the lives of their individual students and wider societies through critical enquiry (whether through teaching or research and scholarship);

- Thirdly, Glion has focused, not exclusively but predominantly, on the research university. Since the 1960s the policy focus has often been on the development of mass higher education systems. In some countries, traditional research universities have somewhat stood aside from the process, either because their position was protected within formally differentiated systems as has been the case in many American state-wide systems (although, of course, this did not preclude massive expansion of student numbers) or, in the case of Central and Eastern Europe, massification had to wait until the collapse of Communist regimes after 1989. In other countries, most especially perhaps in (continental?) Western Europe, even the most traditional universities have been swept up in the shift towards mass access (and, paradoxically, expansion has been more limited in non-university institutions). More recently, as the policy focus has shifted towards competitiveness in the global knowledge economy, research universities have received renewed emphasis — but often largely in terms of their research (and research moreover that seemed to relate to enhanced competitiveness). But generally their wider educational and cultural significance has not received the same emphasis (or has even become matter for a regret, and even apology, on grounds of social equity). In the eyes of many policy-makers, it seems, they are regarded essentially as “knowledge factories”. The value of the Glion process has been to draw attention to research universities, in all their variety, in a more holistic manner.

The Glion process spanned a period of changes in the tectonic plates of global higher education. One has already been discussed — the, perhaps rather surprising, recovery of the European university led by, but by no means exclusively attributable to, the Bologna reforms (Scott, 2012; Crosier & Parveva, 2013). The trials of massification, compounded by the tightening of State budgets as post-war solidarities (and commitment to the welfare state and/or

social market), had thrown many European universities on the defensive by the 1990s. The most established research universities had perhaps suffered more than more recently established institutions. Bologna may have helped them, along with the wider higher education systems in which they were embedded, recover their poise. Of course, other forces have been at work, notably the impact of global rankings of universities that (misleadingly) have understated the quality of many (continental) European universities and which have galvanized political action. Nor has it been an altogether comfortable process, as national policies such as the *Excellenz* initiative in Germany and more recently the French Government's policy of concentration and mergers of universities in major cities have upset long-standing conventions about the relationship between universities and the State. But the overall impact of the Bologna process and national reforms, has been to give European universities a new sense of direction — and a new policy language (even if it is a language disapproved of by some academic traditionalists) (European Commission, 2011; Olsen & Maassen, 2007). Of course, not everyone agrees that European universities are now able fully to meet the global challenges that face them (Ritzen, 2009). It may also have helped to create more of a level playing field between Europe and the United States. The funding challenges facing many American research universities, although they have done little to dent their global dominance, have perhaps had some impact on institutional morale — and produced a more reflective, and even self-critical, mood among their leaders (Smelser, 2013). The proceedings of the Glion colloquia, which began essentially as a transatlantic dialogue, suggest that policy insights, and even policy borrowing, have not always been one-way.

The second shift in the tectonic plates of world higher education, of course, has been the rise of East Asia — China, Korea, Singapore, Malaysia and (possibly) India to join Japan among the world's leading players. This is reflected clearly in the Glion process. New voices increasingly joined in what had begun as a transatlantic dialogue. With each successive colloquium it has been possible to observe a gradual shifting in the centre-of-gravity in world higher education, a shift that has taken place — or is taking place — also on the wider stages of geopolitics and the global economy. Of course, this shift should not be exaggerated. Much of the interest in East Asia expressed through the Glion process has been focused on the opportunities available to American and European universities rather than to a recognition that the baton has truly passed to that world region. University voices from other world regions also remain muted. One surprising silence is from Central and Eastern Europe where perhaps the earlier enthusiasm produced by the collapse of Communist rule has abated. Latin America, Africa, much of the Middle East (outside the oil-rich Arabian peninsula and Gulf States) continue to be zones of silence. The university world remains centred on the North Atlantic.

However, the abiding significance of the Glion process (so far) has been the commentary it has provided on the shift from the overwhelming post-war emphasis on building mass higher education systems, certainly in response to new workforce demands from increasingly post-industrial economies but predominantly to build more open, inclusive, opportunity-focused and perhaps more equal societies, to a 21st-century emphasis on the “knowledge economy” characterized by global competitiveness and accompanied perhaps by an increasing degree of social pessimism as environmental risks and geopolitical threats have accumulated and older forms of solidarity have been shredded. The research university has been in a commanding position to provide such commentary — prospectively as one of the most powerful agents of global competitiveness through its production of highly skilled graduates and outputs of research; but also retrospectively as a key institution in building national identities and shaping cultures (and also as an incubator, and preserver, of the values associated with modernity as they have emerged in the North Atlantic world over the past two centuries — and which are assumed, perhaps arrogantly, still to be transcendent).

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