

National Institute for Learning Outcomes Assessment

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From Denial to Acceptance:

The Stages of Assessment

Margaret A. Miller



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Abstract

From Denial to Acceptance: The Stages of Assessment

In some ways, the assessment movement over the last 25 years is similar to what individuals experience as they move through Kübler-Ross's (1997) stages of grief: *denial*, *anger*, *bargaining*, *depression*, and *acceptance*. Articles on assessment published in *Change* between 1986 and 2011 illustrate the analogy, since the magazine has been a congenial venue for papers focused on learning in higher education in general and the assessment of student learning in particular. During the initial *denial* stage, faculty and staff could not understand why assessment was necessary, which led to *anger* that outside forces were trying to mandate it. However, demands for accountability continued to create pressure for colleges and universities to assess student learning, leading institutions to try *bargaining* with state officials and regional accreditation agencies. Unflattering national evaluations of American higher education such as *Measuring Up* and the Spellings Commission report propelled many institutions into *depression*. But eventually, reluctantly, slowly, and unevenly, many institutions came to an *acceptance* of assessment and its role in higher education.

“Since the mid-1980s, then, at least in part and with a lot of backsliding, we have generally passed through the stages of grief into something like acceptance—acceptance of the need to examine our practices and to communicate about and use the results.”

Margaret A. Miller



From Denial to Acceptance: The Stages of Assessment

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In the late 1980s, at a meeting of deans and department heads at a major university in Virginia, I found myself trying to explain why they might want to assess the learning students got out of their general education courses. Increasingly frustrated by their blank stares, I finally asked them, “What would you say to a student who asks, ‘Why are you making me take a foreign language?’” The provost responded, “I’d say, ‘Because I said so!’”

Whenever I’m tempted to think that we’ve made no progress on assessment, I remind myself of that meeting. Today, the stares might be hostile, but they aren’t blank—and no one now tries to get by with “Because I said so.”

When the assessment movement began those many years ago, its proponents thought that within a few years the assessment of learning would be comfortably ensconced in academic institutions (in 1990, Russ Edgerton predicted its full integration into academic culture by 1995). The movement’s opponents, meanwhile, believed it would take about that long for the “fad” to run its course. But change in belief as foundational as “what we teach is what students learn” comes slowly, and it comes hard.

Some of the reasons for this glacial pace are embedded in human psychology. John Tagg, in an article in the January/February 2012 issue of *Change*, talks about many reasons why faculty, like all of us, resist change. I think some of the resistance to assessment, particularly from faculty, is also due to fear that the results will reflect badly on us as individuals. Added to that is our collective intellectual hubris. We are shocked—*shocked!*—that anyone should question our work. Nevertheless, in spite of resistance, progress has been made—even if not uniformly and ubiquitously.

Nowhere has the assessment movement been more systematically tracked than in *Change* magazine, so I turned to its pages to identify the *stages of grief* we have gone through over the past 25 years on our way to an acceptance of the assessment imperative. They are, as described by Elisabeth Kübler-Ross, *denial*, *anger*, *bargaining*, *depression*, and *acceptance*.

The earliest articles I could find, from November/December 1986, were prescient exhortations by Ernest Boyer and Derek Bok to assess “how much and how students learn in college.” That these were respected voices from within the academy countered to some degree the initial *denial* I witnessed on that Virginia campus and the sullen *anger* of the many faculty and administrators who felt that in the name of accountability, a march was being forced on them by “government and the mob” (C.S. Lewis’s memorable phrase). As Russ Edgerton pointed out in his editorial in that same issue, we were at that time so far from being accountable that we hadn’t even “developed a language for discussing these matters in a way that is intelligible to external constituencies.”

The early, angry battles going on in some states among institutional leaders, faculty, and state officials over compliance with the legislative mandates and “assessment’s lack of constituency” on a couple of typical campuses were chronicled by Pat Hutchings and Ted Marchese in a 1992 article. Over the next few years, the pressure for accountability surged to higher and higher levels as assessment on many campuses stalled.

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In a 1991 article, Peter Ewell wrote about the consequent unraveling of the agreement between policymakers and institution officials that campus-based assessment would satisfy accountability demands, an unraveling that he attributed to our “continuing inability to document effectiveness and improvement” and to the growing suspicion that decentralization was a smoke screen for doing nothing. At this point, institutions were *bargaining*, in effect saying to both state officials and accreditors, “We’ll minimally comply with your demands if you’ll then leave us alone.”

Writing in 1992, Derek Bok weighed in again on the importance of “reclaiming the public trust”—particularly, he said, since the public had it right in thinking that we were not making undergraduate education our top priority. Meanwhile, frustrated in their efforts to learn something about institutional performance, state policymakers turned to performance indicators, described in a November/December 1994 article by Peter Ewell, and then, in some states, to statewide testing, discussed in his March/April 2001 article on the topic.

Measuring Up, national (not federal) report card on higher education, described in the same March/April 2001 issue by Patrick Callan, William Doyle, and Joni Finney, called attention to the lack of comparable learning outcomes across states; the Spellings Commission picked up on the “Incomplete” all states got in that category and pushed hard for such information. The increasingly strident expressions of frustration from higher education’s constituents led many people in higher education into *depression*. But in a departure from that norm, the Voluntary System of Accountability—the only reporting system thus far to include learning measures, and described in several articles in 2007—was launched.

Meanwhile, those in academia who were beginning to come to some *acceptance* of assessment did so largely on the grounds that our most important “product” was learning and that knowing our results was the only way to improve them. The early descriptions of how this would work were simplistic and unrealistic: Institutions would assess their students’ learning, see how it stacked up against their learning goals, and adjust their programs accordingly.

But the ongoing, puzzling general failure to use the results in decision making was still being noted, in a January/February 2011 article, by assessment proponents Trudy Banta and Charles Blauch. This failure may be in part because we are still debating collective learning goals—whether we should have them at all and, if so, what they should be. As early as 1986, Russ Edgerton was telling us that “we only dimly perceive what the changes in the world around us imply for what students should be learning.”

By the late 1980s, the federal government had gotten into the act by requiring accreditors to insist that institutions demonstrate their effectiveness through evidence of learning. Over the years, the Department of Education’s National Advisory Committee on Quality and Integrity (NACQI) pushed harder and harder on accreditors to take to task institutions that did not get past the planning or partial-implementation phase. By July/August 2008, Judith Eaton, president of the Council on Higher Education Accreditation, had authored an article on that organization’s award for campuses with outstanding assessment programs.

In the early 1990s, *Change* covered the federal government’s failed effort to develop a “college NAEP” (National Assessment of Education Progress, used to track learning in the schools) to establish a baseline against which to measure progress on the National Education Goal 6 objective for college students—that their abilities to communicate effectively, solve problems, and think critically would improve substantially. The subsequent development of standardized performance measures such as the Collegiate Learning Assessment (CLA) and

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the Critical Thinking Assessment Test (CAT) provided a *de facto* definition of the aims of college. Recently, both Madeleine Green, in the September/October 2011 issue, and Phillip Altbach, in the January/February 2012 issue, have commented on a fledgling international attempt to do the same thing via the Assessment of Higher Education Learning Outcomes (AHELO, built on the CLA model), a work-in-progress to “test what students in higher education know and can do upon graduation” in the OECD countries (<http://www.oecd.org/edu/skills-beyond-school/testingstudentanduniversityperformancegloballyoecdshelo.htm>).

The fact that coalitions of colleges began to work together to document and improve student learning and development based on CLA findings (e.g., the Council of Independent Colleges coalition, described in the July/August 2008 issue) suggests a gradual *acceptance* of the test’s set of core competencies. And the model of authentic performance assessment had led, by the time it was described by Marc Chun in a March/April 2010 article, to popular workshops on improving course assessments by using CLA-like models in the classroom.

But this focus on test development galvanized other efforts to *first* find common learning goals—such as the Degree Qualifications Profile, currently in trial runs with funding from the Lumina Foundation—and only *then and from these* to develop ways to assess whether students were meeting them. Earlier—in the late 1990s—the American Association of Colleges and Universities had started work on the essential learning outcomes that faculty and employers expected students to demonstrate in its Greater Expectations and Liberal Education and America’s Promise (LEAP) projects as well as with its VALUE (Valid Assessment of Learning in Undergraduate Education) rubrics to assess that learning. As Terry Rhodes explained in the January/February 2011 issue, these rubrics were to be used as scoring sheets for individual electronic student portfolios, built on the model of AAHE’s Urban Universities Portfolio Project’s institutional portfolios—a counter to standardized, even if performance-based, testing.

Another increasingly popular standardized measure that *Change* has covered extensively is the National Survey of Student Engagement (NSSE). The NSSE is an indirect measure of learning, to be sure, but one based on prior research on student behaviors linked to learning—a linkage that was replicated by Ernest Pascarella, as he described in the January/February 2010 issue. Criticism of the NSSE has shown up in the pages of *Change* as well—see Rick Axelson and Arend Flick’s analysis in the January/February 2011 issue.

Gradually, then, higher education was coming to a more-or-less reluctant acceptance of the inevitability of assessment. But that acceptance was manifested less as a growing interest in more sophisticated means of assessment than in a movement of faculty attention from teaching to learning. This shift was signaled and perhaps stimulated by what is perhaps the most influential article ever published in *Change*: “From Teaching to Learning—A New Paradigm for Undergraduate Education,” by Robert Barr and John Tagg (1995). As Mary Burgan noted somewhat grumpily in her defense of lecturing in an article published in November/December 2006, by then, *teaching* and *learning* seem to have become fused at the hip.

We have seen this fusion in the term *scholarship of teaching and learning* (SoTL)—an enlargement of Ernest Boyer’s concept of the scholarship of teaching—as developed by CASTL (the Carnegie Academy on the Scholarship of Teaching and Learning, originally a joint project of AAHE and Carnegie). SoTL has been extensively covered in the pages of *Change* since the late 1990s. With or without the SoTL nomenclature, over the past decade or so, faculty members—from the Nobel physicist Carl Wieman (September/October 2007 and March/April 2011) to the developmental education faculty at La Guardia Community College (May/June 2011 by Mellow, Woolis, & Laurillard)—have been writing about how they have determined what in their own practice promotes deep understanding and what doesn’t. The latest contribution to this line of inquiry is Pat Hutchings’ September/October 2011 article on the ways in which SoTL and assessment converge and diverge.

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Learning has also been the focus of continuous quality improvement (CQI), another thrust of AAHE's work in the mid-1990s. Although the term CQI has dropped from view in recent years, the concept that we should have multiple feedback loops to tell us where in the process learning gets off track and to stimulate "evidence-based improvement in undergraduate education lives on," as Ted Marchese pointed out in a March/April 2011 point-counterpoint with David Arnold. It is nowhere more clearly demonstrated than in Candace Thille's article in the same issue on Carnegie Mellon's Open Learning Initiative, in which the production of learning and cold rolled steel are provocatively compared.

Early desires to determine the return on investment of higher education took on new urgency as public concern about college costs mushroomed. As early as 1994, Al Guskin made the point that we needed both to increase learning and to decrease costs, but few campuses had accepted the need for assessment at that point. As the interest in improving undergraduate learning was increasingly married to the cost-reduction imperative, though, technology came into play.

Enter the math emporium model, promoted by Carol Twigg in a May/June 2007 interview and again in a May/June 2011 article, in which the power of active learning is married to the cost reductions made possible when capital (in this case, technology) is partially substituted for expensive labor. Even high-prestige institutions such as Carnegie Mellon and MIT, as described in a September/October 2010 article, have revised courses along these lines, despite some faculty and student resistance (at least in MIT's case).

After the turn of the century, assessment began gradually to be built routinely into experiments in teaching and learning, such as the University of Virginia's Bay Game (see the May/June 2011 issue) and various service-learning initiatives. As articles on teaching faded, new ones on what we have to learn from the new brain and educational sciences emerged: Robert Leamson, on learning as biological brain change, in the November/December 2000 issue; Michelle Miller, on how active student engagement with instructional technology corresponds to best educational practices, in March/April 2009; David Feldon, on teaching strategies that promote learning, in March/April 2010; and Cedar Riener and Daniel Willingham, on learning styles, in the September/October 2010 issue.

By 1998, beginning with an article by Trudy Banta and George Kuh in the March/April issue, *Change* featured articles on how educators outside the classroom were being exhorted to demonstrate their contributions to student learning and development. Powerful learning environments beyond the classroom were not only the business of student services staff—undergraduate research activities, interdisciplinary programs, and internships also had such potential. John Seely Brown described some of these new learning environments in a September/October 2006 article.

The implications of this work for the very organization of higher education began to emerge with the advent of Western Governors University (WGU), where course requirements were replaced by learning outcomes assessments for purposes of credentialing students. Incorporated in 1997, it took a long time for WGU to be accepted enough by students and employers for its serious growth to begin; WGU now has enrollments of about 30,000 students. The first article in *Change* on WGU was published in July/August 2005. The latest story about how assessment can radically reshape the academy is Anya Kamenetz's article on the development of open educational resources and prior learning assessment in the September/October 2011 issue.

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Yet even by 2006, a subtle shift had begun—programs were beginning to be described in terms of the skills they developed, as Lee Shulman’s article on educating the clergy did in March/April 2006 and Parker Palmer’s article on professional education did in November/December 2007. By then, descriptions of institutional practices and of the story-telling they enable had become ever more rich and juicy.

Increasingly, assessment was seen as capable of serving legitimate heuristic purposes. In the January/February 2007 issue, Richard Shavelson asserted, “Cultures of evidence do not automatically lead to educational improvement if what counts as evidence does not also count as education or counts as only part of it.” By then, the focus on general cognitive outcomes rather than on general education had enabled educators to find common ground for professional and liberal education, as William Sullivan and Matthew Rosin did in a March/April 2008 article.

One measure of assessment’s growing acceptance within the academy has been the reception accorded Roska and Arum’s book, *Academically Adrift* (described by its authors in a March/April 2011 article and, despite methodological objections from other researchers, generally verified by Ernest Pascarella in the next issue). The release of the 2003 National Assessment of Adult Literacy, with essentially the same disappointing results regarding the learning of college graduates, received much less attention (<http://nces.ed.gov/NAAL/>).

Conclusion

Since the mid-1980s, then, at least in part and with a lot of backsliding, we have generally passed through the stages of grief into something like acceptance—acceptance of the need to examine our practices and to communicate about and use the results. To be sure, assessment-based decision making still seems extremely rare on campuses, faculty participation in assessment is uneven, work on SoTL and assessment is still not rewarded at many institutions, progress on common learning outcomes is excruciatingly slow, and very few campuses transparently display their assessment results on their Web pages.

Yet however slow our progress through these stages has been, assessment has become a higher education game-changer. In time, with the continued insistence of external constituencies on their right to know, combined with the curiosity of faculty about the effects of their teaching, I believe we will move more and more in the right direction.

However slow our progress through these stages has been, assessment has become a higher education game-changer. In time, with the continued insistence of external constituencies on their right to know, combined with the curiosity of faculty about the effects of their teaching, I believe we will move more and more in the right direction.

References

- Altbach, P. (2012, January/February). The globalization of college and university rankings. *Change*, 44(1), 26-31. doi: 10.1080/00091383.2012.636001
- Arnold, D., & Marchese, T. (2011, March/April). Perspectives: The continuous improvement trap. *Change*, 43(2), 16–20. doi: 10.1080/00091383.2011.550249
- Arum, R., & Roksa, J. (2011). *Academically adrift: Limited learning on college campuses*. Chicago, IL: The University of Chicago Press.
- Axelson, R., & Flick, A. (2011, January/February). Defining student engagement. *Change*, 43(1), 38–43. doi: 10.1080/00091383.2011.533096
- Banta, T. W., & Blaich, C. (2011, January/February). Closing the assessment loop. *Change*, 43(1), 22–27. doi: 10.1080/00091383.2011.538642
- Banta, T. W., & Kuh, G. D. (1998, March/April). A missing link in assessment. *Change*, 30(2), 40–46.
- Barr, R., & Tagg, J. (1995, November/December). From teaching to learning: A new paradigm for undergraduate education. *Change*, 27(6), 12–23.
- Bok, D. (1986, November/December). Toward higher learning: The importance of assessment outcomes. *Change*, 18(6), 18–23.
- Bok, D. (1992, July/August). Reclaiming the public trust. *Change*, 24(4), 12–19.
- Breslow, B. (2010, September/October). Wrestling with pedagogical change: The TEAL Initiative at MIT. *Change*, 42(5), 23–29.
- Brown, J. S. (2006, September/October). New learning environments for the 21st century: Exploring the edge. *Change*, 38(5), 18–24.
- Burgan, M. (2006, November/December). In defense of lecturing. *Change*, 38(6), 30–34.
- Boyer, E. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Callan, P. M., Doyle, W., & Finney, J. E. (2001, March/April). Evaluating state higher education performance. *Change*, 33(2), 10–19.
- Carey, K. (2007, September/October). Truth without action: The myth of higher-education accountability. *Change*, 39(5), 24–29.
- Chun, M. (2010, March/April). Taking teaching to (performance) task: Linking pedagogical and assessment practices. *Change*, 42(2), 22–29.
- Eaton, J. (2008, July/August). Attending to student learning. *Change*, 40(4), 22–29.
- Edgerton, R. (1986, November/December). Quality: The debate deepens (Editorial). *Change*, 18(6), 4–5.
- Ekman, R., & Pelletier, S. (July/August, 2008). Assessing student learning: A work in progress. *Change*, 40(4), 14–19.
- Ewell, P. (1991, November/December). Assessment and public accountability: Back to the future. *Change*, 23(6), 12–17.
- Ewell, P. (1994, November/December). Accountability and the future of self-regulation. *Change*, 26(6), 25–30.
- Ewell, P. (2001, March/April). Statewide testing in higher education. *Change*, 33(2), 20–28.
- Feldon, D. (2010, March/April). Why magic bullets don't work. *Change*, 42(2), 15–21.
- Green, M. F. (2011, September/October). Lost in translation: Degree definition and quality in a globalized world. *Change*, 43(5), 18–27. doi: 10.1080/00091383.2011.599288
- Guskin, A. (1994, July/August). Reducing student costs and enhancing student learning. *Change*, 26(4), 22–29.
- Hutchings, P. (2011, September/October). From departmental to disciplinary assessment: Deepening faculty engagement. *Change*, 43(5), 36–43. doi: 10.1080/00091383.2011.599292
- Hutchings, P., & Marchese, T. (1990, September/October). Watching assessment: Questions, stories, prospects. *Change*, 22(5), 12–38.

- Johnstone, D. (2005, July/August). A competency alternative: Western Governors University. *Change*, 37(4), 24–33.
- Kamenetz, A. (2011, September/October). The transformation of higher education through prior learning assessment. *Change*, 43(5), 7–13. doi: 10.1080/00091383.2011.599293
- Kübler-Ross, E. (1997). *On death and dying*. New York, NY: Scribner.
- Kuh, G. D. (2007, September/October). Risky business, promises and pitfalls of institutional transparency. *Change*, 39(5), 30–35.
- Leamson, R. (2000, November/December). Learning as biological brain change. *Change*, 32(6), 34–41.
- Lewis, C. S. (1954). *English literature in the sixteenth century excluding drama*. Oxford, London: Clarendon Press.
- Marchese, T. J. (1986, November/December). College, raising a new vision. *Change*, 18(6), 10–17.
- Mellow, G. O., Woolis, D. D., & Laurillard, D. (2011, May/June). In search of a new developmental-education pedagogy. *Change*, 43(3), 50–59. doi: 10.1080/00091383.2011.569264
- Miller, M. (2009, March/April). What the science of cognition tells us about instructional technology. *Change*, 41(2), 16–17.
- Organization for Economic Cooperation and Development. (2011). *Testing student and university performance globally: OECD's AHELO*. Retrieved from <http://www.oecd.org/edu/skills-beyond-school/testingstudentanduniversityperformancegloballyoecdshelo.htm>
- Palmer, P. J. (2007, November/December). A new professional: The aims of education revisited. *Change*, 39(6), 6–13.
- Pascarella, E. (2011, May/June). How robust are the findings of Academically Adrift? *Change*, 43(3), 20–24. doi: 10.1080/00091383.2011.568898
- Pascarella, E. T., Seifert, T. A., & Blaich, C. (2010, January/February). How effective are the NSSE benchmarks in predicting important educational outcomes? *Change*, 42(1), 16–22.
- Plank, J., Feldon, D., Sherman, W., & Elliot, J. (2011, May/June). Complex systems, interdisciplinary collaboration, and institutional renewal. *Change*, 43(3), 35–43. doi: 10.1080/00091383.2011.569248
- Rhodes, T. (2011, January/February). Making learning visible and meaningful through electronic portfolios. *Change*, 43(1), 6–13. doi: 10.1080/00091383.2011.538636
- Riener, C., & Willingham, D. (2010, September/October). The myth of learning styles. *Change*, 42(5), 32–35.
- Roksa, J., & Arum, R. (2011, March/April). The state of undergraduate learning. *Change*, 43(2), 35–38. doi: 10.1080/00091383.2011.556992
- Shavelson, R. (2007, January/February). Assessing student learning responsibility: From history to an audacious proposal. *Change*, 39(1), 26–33.
- Shulman, L. (2006, March/April). From hermeneutic to homiletic. *Change*, 38(2), 28–31.
- Smith, V. B., & Finney, J. E. (2007, May/June). Increasing learning, lowering costs: An interview with Carol A. Twigg. *Change*, 39(3), 16–21.
- Sullivan, W. M., & Rosin, M. S. (2008, March/April). A life of the mind for practice: Bridging liberal and professional education. *Change*, 40(2), 44–47.
- Tagg, J. (2012, January/February). Why does the faculty resist change? *Change*, 44(1), 6–15. doi: 10.1080/00091383.2012.635987
- Thille, C., & Smith, J. (2011, March/April). Cold rolled steel and knowledge: What can higher education learn about productivity? *Change*, 43(2), 21–27. doi: 10.1080/00091383.2011.550249
- Twigg, C. (2011, May/June). The math emporium: Higher education's silver bullet. *Change*, 43(3), 25–34. doi: 10.1080/00091383.2011.569241
- Wieman, C. (2007, September/October). Why not try a scientific approach to scientific education? *Change*, 39(5), 9–15.
- Wieman, C., Perkins, K., & Gilbert, S. (2010, March/April). Transforming science education at large research universities: A case study in progress. *Change*, 42(2), 6–14.

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NILOA Mission

NILOA's primary objective is to discover and disseminate ways that academic programs and institutions can productively use assessment data internally to inform and strengthen undergraduate education, and externally to communicate with policy makers, families and other stakeholders.

NILOA Occasional Paper Series

NILOA Occasional Papers are commissioned to examine contemporary issues that will inform the academic community of the current state-of-the art of assessing learning outcomes in American higher education. The authors are asked to write for a general audience in order to provide comprehensive, accurate information about how institutions and other organizations can become more proficient at assessing and reporting student learning outcomes for the purposes of improving student learning and responsibly fulfilling expectations for transparency and accountability to policy makers and other external audiences.

Comments and questions about this paper should be sent to njankow2@illinois.edu.



About NILOA

- The National Institute for Learning Outcomes Assessment (NILOA) was established in December 2008.
- NILOA is co-located at the University of Illinois and Indiana University.
- The NILOA website went live on February 11, 2009.
www.learningoutcomesassessment.org
- The NILOA research team has scanned institutional websites, surveyed chief academic officers, and commissioned a series of occasional papers.
- One of the co-principal NILOA investigators, George Kuh, founded the National Survey for Student Engagement (NSSE).
- The other co-principal investigator for NILOA, Stanley Ikenberry, was president of the University of Illinois from 1979 to 1995 and of the American Council of Education from 1996 to 2001.
- Peter Ewell joined NILOA as a senior scholar in November 2009.

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National Institute for Learning Outcomes Assessment

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