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Article

Transforming Future Teaching through 'Carpe Diem' Learning Design

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Abstract: Academic staff in Higher Education (HE) need to transform their teaching practices to support more future-orientated, digital, student-centered learning. Promoting, enabling and implementing these changes urgently requires acceptable, meaningful and effective staff development for academics. We identify four key areas that are presenting as barriers to the implementation of successful staff development. We illuminate the Carpe Diem learning design workshop process and illustrate its impact on academic staff as a viable, constructive alternative to traditional staff development processes. The Carpe Diem model directly exposes and addresses the irony that educational institutions expect their academic staff to learn to design and deliver personalized, mobile and technology-enhanced learning to students, whilst wedded to 'one size fits all' face-to-face interventions…or worse, 'page turning' e-learning that masquerades as staff development. To avoid further frustrations and expensive, inappropriate initiatives, the spirit and practice of Carpe Diem could act as a 'pathfinder beacon', and be more widely adopted to enable fast, effective and fully embedded, learner-ready, future-proofed learning.

Keywords: staff development; academic development; learning design; pathfinder; Carpe Diem model; Carpe Diem workshops; transforming teaching

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1. Context for the Pathfinder: Carpe Diem

Online and technology-enabled learning, whether entirely digital or combined with physical environments for learning, is no longer considered a sideline focus of Higher Education (HE). Growth of online learning in all modes is fast becoming "the most pressing and rapidly changing issue faced by faculty members and administration in higher education" [1] (p. 87). Institutions are now faced with a critical shift as students engage in more informal learning outside of the classroom, access free and open courses, and constantly use devices connected to the web to surf the net, download apps, and read articles [2]. Educating learners on how to decipher credible resources and aggregate content has become imperative, and there is a great need for university educators to fulfill the position of guides in the learning process [3].

Creating a sense of urgency amongst a large group of people is a critical factor in successfully achieving desirable change. Even when there are highly capable and committed academics working in universities with sufficient resources, without a fast and effective plan to deliver outcomes, results are frequently dismal [4].

All educators face the pressures of adapting their current teaching ideologies and practice to align with rapidly expanding digital tools and expectations for learning and teaching [5]. Institutions are constantly seeking ways of trying to motivate and enable staff beyond the early digital adopters and into the next wave of deployment of technology-enhanced learning and teaching [6]. The skilling and scaling up tasks involved are proving formidable, expensive and endless, against considerable reluctance from academics. At face value, the resistance often appears to be based on increasing academic responsibilities and inadequate time allowance or incentives [7,8]. However, strategies to enable educators to embrace emerging technologies have the potential to impact the quality of online learning, enhance academic practice of all kinds, and free academics from some of the rigors of their work load models [9].

Confidence and competence is at the heart of whether university academics succeed in transforming their teaching using new design and delivery methods. By far the most common way of attempting to develop academic capability has been to rely on training opportunities, usually in the form of workshops [10]. However, success of staff development to achieve change for the digital learning age requires a variety of shifts: from a 'techno-centric focus' (learning about using the technology) to that of a 'knowledge-centric' focus [11]. Changing teaching methods needs to include the opportunity for academics to ‘own’ the changes through the experience and “express and test in action what they have learned” [12] (p. 208). These initiatives should be delivered within authentic contexts to enable the integration of learning into practice [13,14].

Establishing successful, outcome-driven development opportunities for academic staff, and improving their confidence and competence to design and deliver in online learning environments is very high on the agenda of educational institutions [5]. There is a dramatic increase in learning and teaching development units across institutions over the recent years [1]. Many offer hundreds of face-to-face workshops and yet report constant and increasing frustration at the high cost and low impact on transforming academic practice and through to student learning [15].

Most academic teachers are embedded in the culture of teaching in their disciplines and usually start by teaching how they were taught [9,16,17]. In practice, many of the drivers of innovation tend to be

self-motivated individuals or very small groups, with many academics failing to see the need or find the time. The challenge and often the biggest failure is achieving a 'critical mass' of skilled converts to digitally enhance teaching across the institution [18]. Universities offer various forms of development opportunities for staff, but these frequently result in poor attendance, negative attitudes towards innovation in teaching, and lack of impact on student learning [1,19]. Many educators who are open to changing their practice have learnt online pedagogy design and applications through individually experimenting or researching over the duration of their teaching careers [16,20].

2. Carpe Diem—The Pathfinder

The Carpe Diem process is a collaborative, team-based, online learning design process, created through research and prototyping from the year 2000, and embedded in well-respected pedagogical research. It was originally conceived for two main purposes: to help faculty at a campus-based university (Caledonian University in Glasgow, UK) introduce and deploy a brand new Learning Management System/Virtual Learning Environment (LMS/VLE), and to move from a single academic taking responsibility for a unit, module, course or program, to a team approach. The research in the first few years rapidly established that it was addressing a wide range of variables, well beyond the initial intentions.

The original Carpe Diem design drew from creative processes [21], agile development [22], storyboarding [23] and the then new research on the 5-stage model, e-tivities, and e-moderating [20,24–27]. The process is delivered over a two-day workshop, whereby "every moment of time during the workshop would be spent on designing something that could be put into immediate use with participants" [20] (p. 73). Hence, the process is called ‘Carpe Diem’—an approximate Latin translation meaning ‘seize the day’. Evaluation from the first few Carpe Diem workshops indicated that staff participants in the workshops were informed and enthusiastic [25], and importantly that their practice was transformed in a fast and effective manner. There was visible confidence building and interest among academics in using their institutional-provided LMS/VLE for student activities. The team approach resulted in better professional relationships which were sustained after the intervention. Further, the feedback from the students who subsequently studied the resultant courses showed that they were engaged, successful and happy with the resulting learning experiences [28].

The Carpe Diem workshop intervention model was stable enough to be tried by others, and for Carpe Diem facilitators to be trained. From 2003 to 2005, further testing and development was undertaken with subject teams at the University of Bournemouth and Anglia Ruskin University (both in the UK) which resulted in an increased understanding of, and adjustment to, the model and its adoption by others such as those at Kingston University, UK [29,30].

Carpe Diem was then developed, trialed, and scaled up, especially in the UK, Scandinavia, South Africa and Australia. It has been deployed as a pathfinder, used and developed by hundreds of people, mainly learning technologists, educators, university teachers and academics from many disciplines. They have maintained the spirit of openness and the purpose of enabling learners and learning design to benefit [20]. The handbook has now been published for others to adopt through a Creative Commons License [31].

In 2005, the University of Leicester in the UK launched a new e-learning and pedagogical innovation strategy [32], and with it a research and development project to further evolve and scale up Carpe Diem across the university. The project was called 'ADELIE' and was funded by the UK Higher Education Academy. The university determined that that pedagogical change should be evidence-based. Academics find evidence more convincing than targets, and have a preference for direct support—rather than staff development—to transform learning design [30]. Over the following years the project extended to other universities [33] and newer technologies [20]. Carpe Diem has since been further developed at Swinburne University of Technology and at the University of Southern Queensland, both within Australia [31].

3. The Experience of Carpe Diem

Carpe Diem differs from traditional staff development approaches as it focuses on the learning design needs for specific units or programs of study, thus producing a more authentic and relevant experience for those taking part. The deliverables by the Carpe Diem workshop can be used by the course team immediately. The shortest time from the Carpe Diem workshop to students' desktops and mobile devices is two weeks, but one or two months to completion and delivery is common and viable. Participants become more skilled in the use of a range of LMS/VLE features, but they achieve this feat in the process of addressing a learning design challenge that the technology may help them to resolve. Learning technologists and subject librarians offer additional input and support throughout the intervention, providing further opportunity for sharing of knowledge, attitude changes, personal and professional development and a cascade effect in their own departments.

Participants in Carpe Diem are guided through a design and rapid prototyping process by an experienced facilitator. Hence they are constantly, but not too overtly, invited to think differently, to incorporate available technology into their learning design. The ideology of the Carpe Diem process is that at the end of two days, they have their unit or module at least partly built in the online environment, with an action plan to support it. This result however, like any professional development training, is contingent on the overall scope of the courses being designed, and the academic's experience, attributes and expectations. The Carpe Diem facilitator's main role is to ensure that the workshop deliverables address the pedagogical challenges identified by the course team, and draw on appropriate input from all participants. The facilitator challenges established notions and offers new perspectives in technology-enhanced learning design and assessment. Indeed the role that the facilitator plays is one of the most important fire starters in the process. A knowledgeable and passionate facilitator not only provides the participants with opportunity to pilot their online course design aspirations, but also serves as a 'go-to' person within their institution for their future learning transformations. This is an important component to consider since academics commonly claim that ongoing support is lacking [19]. Carpe Diem workshops not only put educators in touch with a future learning support, but also have the potential to develop a community of innovators and pioneers within their faculties and institutions [34].

Carpe Diem has proven suitable for the design of brand new courses, works well for re-designs, and for transforming face-to-face, campus-based courses into online or blended modes of delivery. It has been used for mobile learning, entirely digital and blended learning. It is necessary to ensure that the

learning outcomes and objectives are agreed upon before Carpe Diem starts. However, it works better if only a small amount of time has been spent collecting or producing materials prior to the workshop to which the team may become wedded, making change in process more difficult for academics to accept. Whilst we report here on its use in Higher Education, other education sectors are also adopting Carpe Diem. It has also been used across many disciplines [20,31]. Further research into the experience and use of the Carpe Diem process has continued to be published [35–37]. In 2013, a series of online interviews with Carpe Diem facilitators and participants were undertaken. These interviews, with the approval of the participants, were posted as online guest blogs under a Creative Commons License [31]. It is from these interviews we quote in the below subsections, reflecting these Carpe Diem facilitators' personal experiences of the transformative nature of Carpe Diem workshops.

4. Carpe Diem as a Pathfinder for New Style Staff Development

4.1 Attitudes and Readiness to Change

The importance of attitude and readiness to embrace new ways of considering learning, teaching and assessment, and staff's willingness to embrace new design and delivery methods [19,38], is typically considered the bedrock of any professional development initiative's success. Hence, undertaking training for those where attitude change is first required may not achieve the desired push towards transformation of their practice. Despite the huge drivers towards transformation of learning and teaching in Higher Education in the 21st Century, most academics are inclined to think that the value of technology-enhanced learning is less than that of face-to-face teaching [39]. Crebbin [40] and Åkerlind [41] demonstrate that teaching is bound up with the identity of the person, and changes require alteration in beliefs, not just the acquisition of new skills. Kang's research found that "faculty's buy-in to online education depends upon the promotion of an institution-wide synergistic environment conducive to educational innovation" [19] (p. 394).

Changing educators' beliefs systems about pedagogical approaches directly impacts on their potential for innovating in their practice [38]. Change in an individual's experience may then provide a pathway to influencing others, in their discipline or institution [42]. Therefore, opportunities that target awareness and design strategies have the potential to provide more effective, scalable and sustainable educational transformation.

Carpe Diem offers a promise to academics of achieving an online or blended course in exchange for two days of concentrated effort, with support from a team of colleagues. By embedding the changes in a course design, with an action plan to deliver, the outcome—a forward looking engaged course for students—is assured. As a 'by-product' the participants' attitudes and willingness to consider new ways of teaching are frequently transformed—sometimes quite dramatically.

> *"[carpe diem demonstrated] ...some great outcomes in seeing staff change their minds about online teaching and get excited by the possibilities. Those staff have then gone on to champion other changes and engage other staff and this is where you can see the beginnings of culture change."* [43]

> *"For some inexplicable reason, many [staff developers] ...believe that because someone is an expert in a certain field, they can work as lecturers or even designers of HE programmes with minimum training or none at all. Not so. Teaching, including facilitation (in the seminar room, lecture theatre or online), is a highly complex activity that involves multiple skills as well as expert knowledge. 'Being reflective' (which is the focus of much of the training available) is part of it, but by no means enough."* [44]

4.2 Authentic Development

At the very foundation of adult learning principles is the argument for situated or authentic learning opportunities [45]. Nearly all academic teachers wish to develop their practice in a way that directly and immediately can be put into use. They are seeking practical and achievable outcomes. Their preference is for learning which will develop their teaching in a meaningful, authentic and useful way—what is known as 'situated'. Developing staff is best achieved by focusing on their needs, "by supporting … active engagement ... and creating knowledge that can be immediately usable in each participant's teaching context" [46] (p. 145). Hence, staff development should reflect a corresponding real-world application where participants are able to get 'hands on' experience [46]. In many institutions, this practical and outcome-driven approach to professional development opportunities has been lacking [19], creating a downward spiral of attention and achievement. Kang further tells us that "online faculty's needs must be used as the benchmarks in designing, developing, and implementing …If not, online faculty are less likely want to attend these kinds of training because, as one participant said, it is just a 'waste of time'." [19] (p. 399).

The Carpe Diem outputs can be used by the course team immediately, and can inform the development of other course components. Carpe Diem offers highly practical and applied learning to academic teachers and their supporters, and requires at least two full days of their time. It is frequently reported that two days cannot be found in their busy schedules. However, those who can find that precious time are often convinced within hours that the practical and situated nature of the intervention has saved them days or months of individual work. The learning they acquire during those two days is indeed both situated and authentic. It achieves what they would have sooner or later eventually needed to undertake alone, but with far more knowledge, support and understanding as a result of the Carpe Diem intervention. Day two of the workshop intervention includes working very actively with support in the online learning environment—this is as situated as it comes.

In our recent evaluations, Carpe Diem facilitators and participants agreed:

> *"This is a quotation (2013) from a tutor who teaches a Skills in HE programme. It sums up a key benefit of Carpe Diem: it delivers the goods efficiently:*
>
> > *'We've been messing about with this course for two years, with no end product. Only after going through this [Carpe Diem] process as a team have we managed to move forward and get it done'."* [44]
>
> *"Carpe Diem strongly supports and reflects the idea of constructive alignment, the essence being a focus on the desired learning outcomes, the teaching and learning methods appropriate to achieve those outcomes and the selection of appropriate assessment tasks to determine if the outcomes*

match those that are intended or desire. The storyboard process of Carpe Diem helps shift the focus away from course content and towards students' learning outcomes." [47]

4.3 Time and Cost-Effectiveness

In view of the pressures and imperatives to change their practice, it would be reasonable to assume that all academics would be keen to participate in staff development [48], but many institutions struggle to convince all their educators that attendance is worth their time [49]. There needs to be an appropriate balance between investment in and output from the initiative. A high degree of personalization and flexibility is required to meet multiple disciplines and specific contexts. Kang's research reports that "if faculty feel that attending training would require a disproportionate input of time and energy with low return or if they sense that the training has highly specified and predetermined curriculum... and facilitators ignore their learning preferences and learning curve, they will show no interest in attending" [19] (p. 399).

Carpe Diem is a model and framework—well worked and structured but not context specific and hence can be deployed in any discipline. It need not be presented as training and development at all, but as a supportive and fast way of academic staff designing and preparing their unit or module for rapid development. As the knowledge owners are involved throughout, there is rapid transfer of tacit and more objective information *without* the feeling of loss of control of their specialisms and hard won knowledge and skills.

Most Carpe Diem participants are excited by the balance between structure and the stretching of their assumptions. They particularly enjoy the planning phase through the metaphor of a 'blueprint', and especially in constructing a 'storyboard' for their course. In short, Carpe Diem is relevant, focused, appropriate and acceptable, and is more effective in positioning staff for the future than traditional staff development activities.

"The Carpe Diem process provides a structured framework for course teams to understand, design, develop and implement e-learning designs. It provides ways of exploring a variety of e-resources and low-cost, high-impact technologies, with practical support to deliver the course in an online environment." [47]

"The Carpe Diem workshops really do provide an engaging workshop for a group of staff to design their units or courses. There are great benefits in bringing together the content experts, educational technologists and librarians as all the different knowledge and skills create a very productive way of working that leads to good outcomes in a short period of time—much more fun than struggling to design on your own! I think the sense of achievement that the teams feel at the end of two days is very powerful." [43]

4.4 Multi-Professional Teams

A key challenge for staff development is the ever-increasing importance of multiple technological and pedagogy skills, knowledge and experience required in the successful implementation of learning design [50,51]. The productive and creative design and development of learning with technology

requires educators to be multi-talented, or to unbundle faculty roles and responsibilities in order to gain expert input in online course development [52,53], both of which present serious challenges to institutions. Universities are beginning to capitalize on benefits of utilizing joint non-academic and academic staff teams to help design online learning and teaching resources [54], recognizing that they can foster "teamwork, dissemination of ideas and networking of teaching practitioners both within and across faculties" [54] (p. 21).

Carpe Diem was conceived from the very beginning as a short intervention by collaborative teams—typically comprising of two or three academics, a subject librarian and a learning technologist, supported by strong facilitation. Carpe Diem facilitators encourage all participants to be involved for the full two days creating a leveling and valued contribution approach from *all* involved, as well as being beneficial for constructive challenge and knowledge development. It is common to find that many academics have never worked in this way before and find it exceptionally enjoyable.

> *"I think the model of using multi-disciplinary teams (content experts, technology experts and information experts) will become even more important as new technologies and resources are embedded in learning and teaching practice and universities race to stay up to date with new developments."* [43]

> *"Additionally, the input from staff from various disciplines and support contexts (Library, ICT) means that the course ultimately has a broader outlook than was possibly originally envisaged. It was evident that participants learned new things from the other team members, and discovered new approaches that they may not have considered before."* [47]

5. Creating more Pathways

The most successful educators and education institutions of the future will be those who can anticipate and act on the signals—both strong and weak ones—coming from the external environment [55,56,57], and then work out how to enable productive applications for learning. Academics need to be involved in a whole range of design processes, from MOOCs to mobility, and blended to industry-based learning. The past ways of enabling staff development provide us with very little guidance for future effective and successful approaches. Institutions and educators that can 'seize the day' and enable fast, agile and productive learning design with technology will be the successful pioneers of the future. If we wish to transform learning for the benefits of future university students, then the development of all staff invoslved in creating those learning opportunities must equally be transformed. New approaches must facilitate increased readiness and comfort to enable change and team-based interventions, and challenge past beliefs about existing, long-term practice in learning design. Critically, development for these aims must be more engaging, acceptable, meaningful and made available to those in the front line of knowledge construction and engagement. It must offer time and cost effectiveness to all involved.

As a pathfinder, Carpe Diem directly exposes and addresses educational institutions' ironical expectations that their academic staff learn to design and deliver personalized, mobile and technology-enhanced learning to students, and yet are subject themselves to 'one size fits all' face-to-face interventions…or even worse, 'page turning' e-learning. The spirit of the pathfinder that is

Carpe Diem should be more widely adopted. The transformation of Higher Education will depend on fast, effective and well-rehearsed processes for designing student-centered, engaging, future-proofed learning. Carpe Diem is easily adopted and developed in any educational context (refer to [31] for access to handbook).

It is beneficial to all staff involved in delivering units and modules developed with Carpe Diem to have mastered the skills of teaching online, and in an authentic and fast manner [17]. Nothing less will do for the extraordinary 2nd and 3rd decades of the 21st Century for Higher Education.

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Conflicts of Interest

The authors declare no conflict of interest.

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