

EISA

Learning and Development

Open Campus Update: from eLearning Strategy to eStrategy**Progress Report and Update: November 2008**

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Open Campus Update: from eLearning Strategy to eStrategy

Progress Report and Update: November 2008

1. *Background*

In December 2006 a paper was submitted to ESLCC detailing the new eLearning Strategy for the External System (see Appendix 2 – eLearning Strategy). The paper outlined a number of key recommendations for the modernisation and future developments of online learning and administrative services for the External System.

The essence of the paper was to recommend a transition to a framework-based approach to eLearning in the External System. The framework, aligned closely to the JISC eLearning Framework, would offer a flexible and modular approach to service provision in the federal University, independent of technology decisions and achievable in a staged and evolutionary manner. The name used to describe this framework was the Open Campus.

The paper was accepted by ESLCC and the following is a progress report of the work completed in implementing the key recommendations and an update of the strategy.

2. *eLearning Strategy Key Recommendations*

The eLearning Strategy made the following key recommendations to achieve the strategic objective of the Open Campus:

1. Further development of the eCampus should be through a service-oriented, framework approach to the provision of learning technologies¹ for the External System, congruent with the internationally emerging eFramework². Adoption of the new umbrella title 'Open Campus' will reinforce and support the significance of this change.
2. Development should enable eLearning applications in use both in the External System and across the federal University to work together, by providing a framework within which modular applications will communicate using a common language ('interoperability') and be accessed through a common portal.
3. Future development should aim to provide colleges with a range of modular eLearning tools and technologies via a flexible open-standards interface.
4. The Moodle open-source eLearning environment, hosted by the University's Computer Centre, should be the principal source for the modular toolset.
5. Other eLearning tools to be used should conform to a common standard, characterised by: single sign-on; a single portal; 'interoperability' through web services; and XML as a common language for information and services
6. The current virtual learning environment, Effect, should be phased out within three years, subject to current consultations with programme teams to agree an appropriate migration strategy, either to new External System eLearning applications or to other systems in use within the College concerned.

¹ For a definition of the service-orientated approach to eLearning, see the JISC website at <http://www.jisc.ac.uk/elearningfocus>

² For the JISC-sponsored eFramework, see <http://www.e-framework.org/>. A diagram showing the current eFramework for the External System is attached as an appendix to this paper.

7. During the implementation phase, commencing immediately, new study programme developments will be encouraged to use the Moodle learning environment.

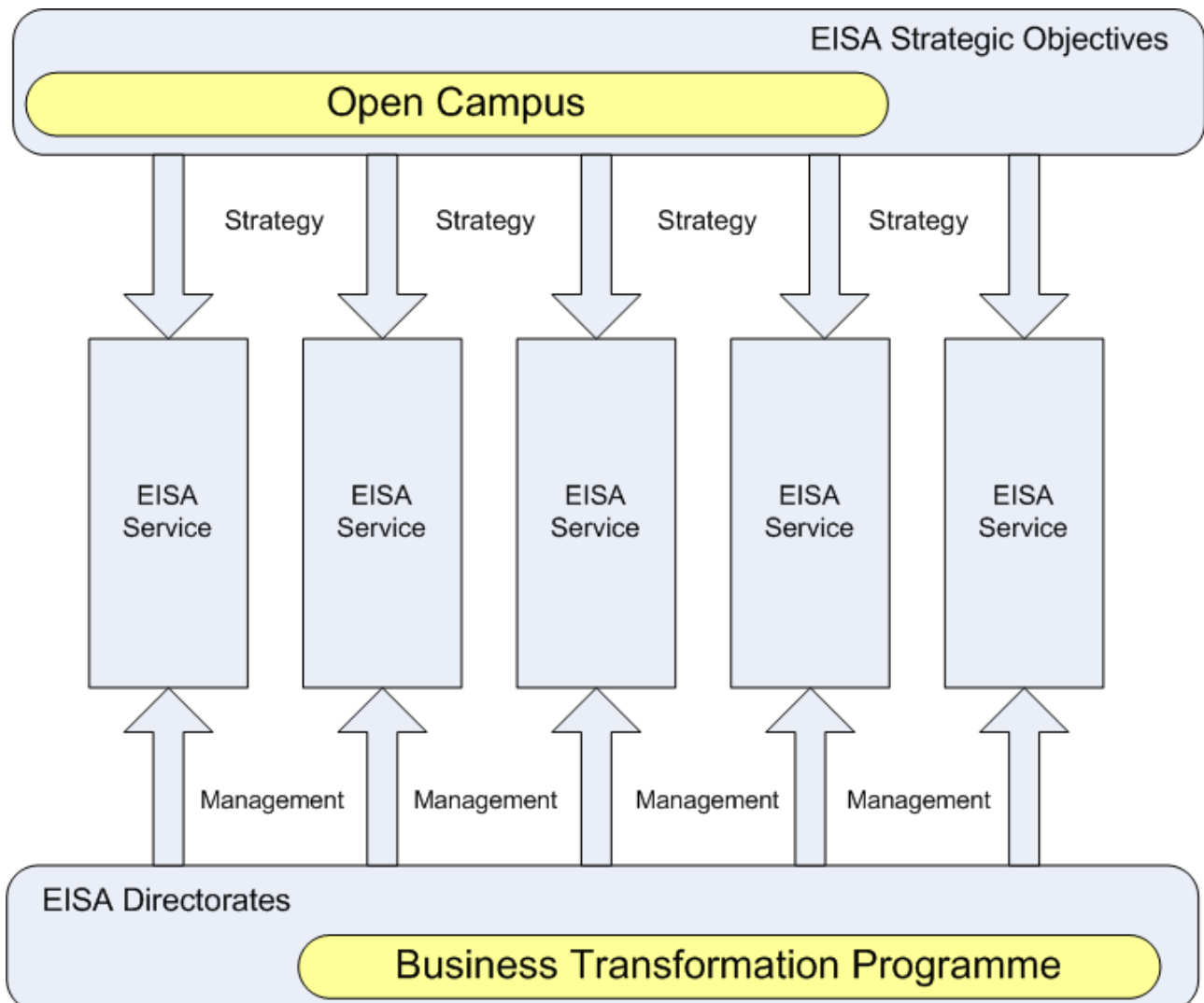
A detailed report on the progress of implementing these recommendations is provided later in the paper.

3. Managing the Transition: from eCampus to Open Campus

The management of the transition to the Open Campus is being handled through the normal operational practices of the EISA directorates and through the development work undertaken as part of the Business Transformation Programme (BTP). The BTP is a cross-directorate project responsible for a number of projects aimed at modernising the business processes within EISA, including the implementation of a new student management system (SITS), and the development of an institutional portal and other changes to business processes. The BTP reports to the BTP Project Board, chaired by the Dean of the External System, which in turn reports to the External System Board.

The purpose of the Open Campus, along with other initiatives within EISA, is to provide strategic objectives into both the BTP and EISA directorates, which, in turn, will provide the management and resource infrastructure to develop systems and services to realise these objectives.

This process is represented as such.



4. Progress Report: from eCampus to Open Campus

The following is a progress report of the work undertaken so far in implementing the key recommendations of the eLearning Strategy.

4.1. Recommendation 1 Progress

Further development of the eCampus should be through a service-oriented, framework approach to the provision of learning technologies for the External System, congruent with the internationally emerging eFramework. Adoption of the new umbrella title 'Open Campus' will reinforce and support the significance of this change.

This recommendation is central to the philosophy of the eLearning strategy. The adoption of a framework approach means that colleges are free to make strategic decisions on the services that they will use, whilst still ensuring that the External System provides a robust and extensive range of tools, technologies and services to those colleges who wish to use them. The following Recommendations (2-7) explain the progress made so far on effecting the transition to the framework model.

However, where little progress has been made is in the adoption of the title of Open Campus and the general awareness of the eLearning Strategy both within EISA and the Colleges. This matter needs to be addressed if the eLearning Strategy is going to be seen as a driver for change.

4.2. Recommendation 2 Progress

Development should enable eLearning applications in use both in the External System and across the federal University to work together, by providing a framework within which modular applications will communicate using a common language ('interoperability') and be accessed through a common portal.

Underpinning the Open Campus strategy was the need to develop an enterprise student portal that would act as the 'glue' to support the eLearning framework. The role of the Portal is to provide a single point of access to a variety of disparate data sources and information systems, both within and outside of EISA, and present the user with a personalised and customisable view of these based on their role within the organisation and their personal preferences.

Key features of a portal include:

- **Single Access Point** – where a variety of disparate data sources and information systems are aggregated, integrated and presented via the portal whilst still adhering to the underlining business logic of these applications
- **Personalisation** – where information is presented to the user based on who they are and what they are allowed to see and do
- **Customisation** – where users are allowed a degree of autonomy to change what is displayed based on their personal preferences
- **Single Sign-On (SSO)** – where access to all information is seamless with no need for multiple authentications and existing security policies maintain intact

Because of this approach, it would mean that students logging into the Portal system would be able to see information and access systems that we held outside of EISA (e.g. the Online Library and the BLE hosted VLE), as well as those systems hosted by EISA (e.g. Moodle).

Underpinning both the Portal as well as the framework was the requirement to provide a central authentication system that would provide a username and password for all staff and students of the External System as well as providing the relevant information to provide authorisation details.

The External System began a consultative process to look at vendors and suppliers to provide this solution. Some of this work was undertaken as part of the SITS implementation project and some was undertaken by directly approaching vendors (e.g. ULCC). Towards the end of the 2007 a decision was made to use a suite of IBM products and work in conjunction with an IBM Premiere Business Partner (Open Logic) to provide technical advice and guidance. A working team was established consisting of staff from the Operation Services and Learning & Development directorates in EISA and work began in February 2008.

The Portal project was divided up into six sub-projects (or services) to allow for a staged and evolutionary approach to delivery. These six services are:

1. Identity and Access Management Service
2. Business Integration and Personalisation Service
3. Student Email Service
4. Student Networking Service
5. Profile and Security Management Service
6. Web Content Management Service

Please see Appendix 3 – Portal Project Overview for more detail on these services.

A pilot Portal was provided for a sub-set of the Laws student community for May/June 2008 and was broadly delivered on time and to specification. Work began on the delivery of the live system for the start of October 2008 in July 2008. This was aimed at providing access to students from the Laws and EMFSS suite of programmes, as well as offering the potential for other programmes to benefit at this time.

During the development of the live system, a significant problem was found with a key piece of software, and considerable effort was required to implement a number of alternative solutions until a fix was provided by IBM. This had the unfortunate effect of delaying the delivery of some services which have now been postponed until the beginning of 2009. Additionally, the delay meant that the system could only be offered to the Laws and EMFSS programmes.

The services delivered for October 2008 were:

1. Identity and Access Management Service
 - a. Central Authentication System created and populated with all EISA students from EARS
 - b. Shibboleth service installed and incorporated into the Online Library (where the supplier supports this service)
2. Business Integration and Personalisation Service
 - a. All major EISA based applications integrated into the Portal (Moodle, Library, Email and web content)
 - b. Single Sign-On (SSO) implemented across most applications (Moodle and Email). Shibboleth requires a separate logon using the same credentials. SSO implemented across all Shibboleth enabled resources
 - c. Students presented with the information that is relevant to them

3. Student Email Service
 - a. All University of London External System now have their own institution email account accessed via the portal

4. Web Content Management Service
 - b. Web Content Management available within the Portal

The following services are scheduled for the beginning of 2009:

- Student Networking
- Profile and Security Management

The Portal project has been a well received and broadly successful project for EISA. However the delays caused by the failure of a single piece of software have caused some unfortunate related issues. The period between October 2008 and the Summer of 2009 were supposed to be a time for expanding the services offered within the Portal and increasing the number of programme participants using it. However, the delays mean that this process may not be able to start in earnest until March/April 2009 which may not leave sufficient time to make much progress before the start of the 2009 academic year.

However, despite this, the Portal services that will be available will now make it possible to begin to realise the eLearning strategy framework approach. The availability of a SSO based authentication system (as well as Shibboleth) means that this can be used to support External System students using non-EISA hosted applications (e.g. the BLE VLE, college libraries) as well as non-EISA based student accessing EISA systems. This, together with the integration and personalisation services mean that programmes can present students with access to a wide range of tools, specific to their needs or fields of study, that can all be accessed from a central point and sharing a centralised authentication system.

4.3. Recommendation 3 Progress

Future development should aim to provide colleges with a range of modular eLearning tools and technologies via a flexible open-standards interface.

Since the phasing out of the Effect VLE and the removal of the expectation for Colleges to rely on a centrally provided VLE service, a number of Colleges have opted to, or are planning to, adopt the VLE hosted by the Bloomsbury Learning Environment (BLE).³

In addition to this, some colleges have chosen to use services offered from within the College rather than from within EISA. For example, the Institute of Education have been using an ePortfolio tool (PebblePAD) as well as a web-conferencing tool (Elluminate) both of which are not provided by EISA.

However, EISA has continued to expand the range of services available to the colleges and will continue to expand this range in the future. The range of tools and technologies available now and in the future includes:

4.4. Table 1 – Existing and future learning tools and technologies provided by EISA⁴

Function	Tool or Technology	Tool or Technology available
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³ Birkbeck are one college who has adopted the Bloomsbury VLE. SOAS are one of the colleges who are planning to.

⁴ Please see Annex 1 for a diagrammatic representation of these services in relation to core and non-core provision

	available now	in the future
Virtual Learning Environment (VLE)	Moodle Effect (being phased out)	
ePortfolio	Mahara PebblePAD (available if required)	
Content and Resource Management	DSpace MediaWiki	Quickr Web Content Management Blogs
Assessment and Plagiarism Detection	QuestionMark TurnItIn	
Communications	Student Email	Chat
Authentication and Interoperability	Shibboleth SSO	
Other	Video Streaming	Social Bookmarking Social Networking

In addition to these tools and technologies, a range of other services will become available as part of the SITS implementation project, including:

- Online course selection and progression management
- Online payments
- Management reporting
- Administrative reporting

4.5. Recommendation 4 Progress

The Moodle open-source eLearning environment, hosted by the University's Computer Centre, should be the principal source for the modular toolset.

The Open Campus eLearning strategy required that the existing Effect VLE would be phased out over a number of years. The strategy also noted that Moodle would begin to be offered as the External Systems primary learning environment for colleges and programmes. However, colleges also retained the option of using other learning environments if they wished to.

The approach EISA took in managing this process was:

- **Priority 1:** Find a suitable company to host and provide Moodle services
- **Priority 2:** Migrate existing programmes currently using Effect to Moodle
- **Priority 3:** Migrate programmes currently in development from Effect to Moodle
- **Priority 4:** Promote the use of Moodle to those colleges who currently do not have any VLE support

Throughout Spring 2007 EISA approached a number of possible vendors who would be able to provide Moodle hosting and solutions. In the end, due to both their recognised technical expertise and proximity, ULCC were chosen to host the Moodle platform.

Towards the end of 2007 all of the existing programme teams had been contacted about the migration and, in general, the feedback was positive and encouraging. At the same time, some additional resources were hired within EISA to help with the transition. Equally, in explaining the Open Campus strategy to some colleges and programme teams, it gave them the opportunity to reconsider their own requirements regarding VLE provision. As such, some programmes chose to align themselves with their internal provision and adopted Blackboard (via the BLE) as their VLE choice.

A pilot of Moodle was run for a small selection of EMFSS courses during the beginning of the 2007/08 academic year. This pilot was deemed a success. At the same time, work began in

earnest on the migration of Effect courses to Moodle for the start of the 2008 academic year. This was a combined effort between EISA and the programme teams. A summary of the migration of programmes from Effect to Moodle is given in Recommendation 6.

In the academic year beginning 2008 the EMFSS (LSE) and MRes (IoE) programmes became the first to adopt Moodle as their EISA provided VLE without having first used Effect.

4.6. Recommendation 5 Progress

Other eLearning tools to be used should conform to a common standard, characterised by: single sign-on; a single portal; 'interoperability' through web services; and XML as a common language for information and services

At all times during the implementation of the strategy every effort has been made to address open standards and interoperability issues. The choice of authentication models (LDAP and Shibboleth), Moodle and IBM Websphere Portal (JSR-168 and WSRP) exemplify this. Additionally, interoperability between EISA systems has now been well established (e.g. between EARS, LDAP, Moodle etc.).

The use of Shibboleth Access Management began as a project in 2007 at the request of the Chief Officer, funded by the Centre for Distance Education (CDE) and advised by the LSE and other sector leaders.

The first stage of the project was completed in the Summer of 2008 as part of the Portal Project Identity and Access Management Service when the External System were officially registered as an identity provider with the UK Access Management Federation (under the name of University of London: External System). The service is currently being used to provide students access to library resources provided by external suppliers (Service Providers) using the same login credentials as they use when accessing the Portal.

The emergence and increasing maturity of Shibboleth does represent a real opportunity to explore both interoperability and interaction between EISA and college systems (for example, though letting EISA students' access non-EISA systems and vice-versa). However, this work will still represent a significant challenge for the future.

Additionally, in light of the potential of Shibboleth to provide interoperability, there is now less emphasis on the need to use Web Services and XML to provide interoperability between systems⁵. This is not to discount the possibility of using web-services for some operations, but they should not be seen as the only option. Additionally, whilst XML *is* a common language, it is not the only way to share information across systems (for example, interoperability between some EISA system (e.g. EARS and LDAP) have been achieved using CSV files rather than XML).⁶ Therefore, it is recommended that the specific reference to these technologies is removed (or referenced as examples only) as they may be seen as technological constraints.

4.7. Recommendation 6 Progress

The current virtual learning environment, Effect, should be phased out within three years, subject to current consultations with programme teams to agree an appropriate migration strategy, either to new External System eLearning applications or to other systems in use within the College concerned.

The phasing out of the Effect VLE coincided with the introduction of Moodle as the primary VLE provided by EISA. The beginning of migration began in early 2008 with the majority of

⁵ In this context I am using web-services in the technical definition of the word, rather than the literal (i.e. as a technology to support machine-to-machine interaction over a network and not as a set of online services)

⁶ The two concepts may also be contradictory, as some web-services (e.g. RESTful web-services) do not require any XML messages.

programmes now successfully using Moodle but with some programmes opting to use VLEs provided elsewhere. There still remain a small number of programmes using Effect but these are expected to migrate to Moodle by the start of the next academic year.

The following is a table showing the migration schedule from Effect.

4.8. Table 2 – Timetable of migration from the Effect VLE and Moodle adoptions

Institution	Programme	Date of migration/ adoption	Progress
IoE	AELM	Sept 2008	Programme live in Moodle
IoE	Citizenship and History	Sept 2008	Programme live in Moodle
IoE	MRes	Sept 2008	Programme live in Moodle
RHUL	Information Security	Sept 2008	Programme live in Moodle
RHUL	Classics	Sept 2008	Programme live in Moodle
RHUL	History	Sept 2008	Programme live in Moodle
RHUL	Business Administration	Sept 2008	Programme live in Moodle
Laws Consortium	LLB, Diploma in Law	Sept 2008	Programme live in Moodle – some courses not yet available
Birkbeck	OPHRM	Sept 2008	Programme live in Blackboard (BLE)
Goldsmiths	English	Jan 2009	Migrating to Moodle
SOAS	CeFiMS	Jan 2009	Migrating to Blackboard (BLE)
SOAS	CeDEP	Jan 2009	Migrating to Blackboard (BLE)
Kings	MClinDent	Sept 2009	Migration to WebCT (Kings)
PGLaws Consortium	LLM	2009	Migrating to Moodle

In summary, the phasing out of Effect has been successfully managed with only a small minority of programmes still using it. It is expected that all programmes will be migrated successfully by the start of their next academic year. In addition to this, the uptake of Moodle has also been successful and positively received. The External System currently has over three-quarters of its students (approximately 32,000) able to use the Moodle sites hosted by ULCC, with only a small number choosing the opt for alternative systems.

The External System is now at the stage where it can focus on its priority of promoting the use of Moodle (or other VLEs) amongst those colleges that currently have no VLE presence at all.

4.9. Recommendation 7 Progress

During the implementation phase, commencing immediately, new study programme developments will be encouraged to use the Moodle learning environment.

This recommendation has been broadly covered in Recommendation 4 and 6. This recommendation was actioned immediately and all courses in development or those courses planning to use a VLE for the first time were encouraged and chose to use Moodle. These were the MRes programme (IoE) and the EMFSS suite of programmes (LSE).

4.10. Summary of progress

In summary, the progress made since the submission of the paper to ESLCC should be regarded as both significant and broadly successful. The work completed over the last 18 months has placed the External System in the optimum position to achieve and exploit the benefits of the framework model. The delivery of the Portal system, underpinned by a central authentication system (including Shibboleth) and the adherence of open standards provide the foundations upon which the framework can exist.

However, for the eLearning strategy to be considered truly successful, greater integration between EISA and non-EISA systems will need to be explored and delivered. Additionally, Colleges will need to be made more aware of the strategy and their available options choosing which services to use (e.g. Core v Non-core).

Additionally, the strategy needs to be more tightly integrated into the normal operational tasks of both the EISA directorates and the Business Transformation Programme to ensure that it acts as an effective driver for change. In order to achieve this, it will be necessary to re-title and reposition the strategy as an *eStrategy* (as opposed to *eLearning Strategy*). This way, by removing the 'Learning' phrase, it broadens the scope of the strategy to include all of the activities of the External System relating to the student lifecycle. However, it should be recognised that the *eStrategy* relates only to those services that are both online and student facing. It is not intended to act as a driver for things such as administration and process change.

5. Future Key Recommendations

The following are a list of additional key recommendations to support, supplement or amend the existing key recommendations of the existing eLearning Strategy. Acceptance of this paper at the appropriate level may require the existing recommendations to change.

1. To reposition and re-title the *External System eLearning Strategy* as the *External System eStrategy*, thus broadening both its scope and sphere of influence within the student lifecycle.
2. To actively promote and disseminate the *eStrategy* within the External System to ensure that all colleges understand both its purpose and their available options
3. To continue to develop and progress the framework model for all services with specific regard to achieving tighter integration with non-EISA hosted services
4. To remove any specific references to web-services and XML for providing interoperability (or include these as examples, along with Shibboleth) as these may be regarded as technological constraints

6. Next Steps

The next stage of the *eStrategy* will be to actively disseminate it to all stakeholders and interested parties within the External System. It is hoped that this work can be completed in the next three-to-six months. It is expected that the communication of the strategy will

stimulate sufficient dialogue and feedback from the stakeholders to produce a definitive set of requirements and priorities to effect the successful implementation of the strategy.

Once these requirements and priorities have been collected it will be possible to create an implementation plan, showing timelines, key dates and resource implications.

7. Summary

- The *eLearning Strategy* is a framework model that highlights a modular approach to the provision of services to the Colleges (although some services will always remain as core and provided centrally by EISA).
- The framework provided a varied and dynamic environment in which the Colleges can work with the External System. As such, careful consideration needs to be paid to interoperability between, and support of, the variety and combination of systems available.
- The purpose of this document is to map the recommendations of the *eLearning Strategy* against the range of completed and ongoing work carried out within the External System and highlight any future recommendations and specific areas for attention.
- This document also recommends that the *eLearning Strategy* is repositioned and re-titled as the *eStrategy* to broaden its scope and sphere of influence within the student lifecycle. The reason for this is the recognition that the framework model contains areas and services that do not necessarily fall into the traditional definition of 'learning' (for example, registration and graduation).⁷
- The *eStrategy* will be actively disseminated and communicated to all relevant stakeholders and interested parties in the near future. Feedback from the Colleges will be used to determine the requirements and priorities future implementations. Timescales, key dates and resource implications can be considered once the requirements and priorities have been assessed.
- The *eStrategy* will be continually revised in light of new developments and recommendations for within and outside of the External system and will feed in, and respond to, the Business Transformation Programme and EISA committee structure.

⁷ Alternatively, the title of *eLearning Strategy* could remain, with the existing strategy making specific reference to it's wider influence in the student lifecycle.

8. Appendix 1 – eFramework Overview

