Extreme Learning Process

**Objective**

XLP aims to become a “crowd learning” operating system that enables the creation of rich learning ecosystems. Ultimately, as the number of participants in “crowd learning” ecosystems increases, we envision each such ecosystem increasingly approximating the “real world”.

**目标：**

XLP旨在构建一个’群体学习’的运维系统，这一生态系统能够提供丰富的学习体验。随着进入到‘群体学习’生态系统的参与者人数的增加，我们可以预见，这样的生态系统最终会越来越接近‘现实世界’。

Student Perspective

1. XLP engages students by forcing them to make financial, legal, cultural and technical decisions, so they can achieve goals set by the student groups themselves.
2. XLP is pragmatic. The XLP-method induces realistic human dynamics, utilizes modern technologies, encourages students to create social norms, and establishes executable regulations based on the design principles of the fast evolving Internet.
3. XLP drives students to realize their un-tapped potentials and emerging powers of collaboration through having them stretch the educational envelop by shifting focus from teaching (top-down) to learning (bottom up).

从学生的角度而言：

1. 在XLP中，学生为了达成他们预设的目标，他们必须做出财务的、法律的、文化的和技术的决策。
2. XLP 贴合实际。XLP活动考虑了现实的人际互动，运用在现代科技，鼓励学生基于快速演进的互联网设计法则，去定义社会准则，并制定可行的规章制度。
3. XLP 变自上而下的教授为自下而上的学习，让学生得到更多的锻炼，从而充分释放他们的潜能，以及团队合作的力量。

Teaching Perspective

1. XLP encourages an evolutionary process, which creates a digitally enabled learning context that delivers rich social-interactions and leaves no-one behind.
2. By placing students in control of learning, XLP redefines teachers’ roles as curators of learning resources and as evaluators of students’ learning-potentials.
3. XLP provides network-enabled learning data management technology that enables stakeholders to record, analyze and identify learning trajectories to define new directions for progress.

从教学的角度而言：

* XLP引领一个渐进的学习过程，并且使用数字化手段记录学习的情景，其中包含了丰富的人际互动，大家互相帮助，不让任何一个成员掉队。
* 通过让学生来控制学习的过程，XLP重新定义了教师的角色，从学习资源的看护者到学生‘学习潜能’的评估者。
* XLP提供了基于互联网的学习数据管理技术，使参与活动的人可以记录、分析和确定学习曲线，并不断校正前进的方向。

**Approach**

XLP re-structures a learning environment into an interactive learning/publishing workflow. Utilizing open source technologies, XLP provides a digital-based bottom-up operating environment, orchestrates inter-disciplinary students and teachers into Crowd Learning participation, and creates a concurrent learning process integrated with a compilation process to yield digitally publishable learning summaries.

**方法：**

XLP将学习环境重新整合为一个互动学习/出版发行工作流。利用开源技术，XLP提供了一个基于数字的自下而上的运维环境，让具有不同学科背景的学生和教师参与到‘群体学习’中来。XLP是一个并发的学习过程，包含了一个产生数字发布学习总结的编辑过程。

**Operating Environment**

XLP provides digital and physical infrastructures enabling learners to practice their four basic rights, which correlate with constitutional scholar Lawrence Lessig’s “Four Modalities/Forces”:

* *Architecture:* Technologies, industry protocols, or natural laws that enable certain interactive behaviors of the crowd.
* *Law:* Conflict resolution mechanisms that regulates certain crowd behavior.
* *Market:* An asset exchange platform encourages, pulls out, and integrates certain actions.
* *Norm:* Cultural norms encouraging peers to act mutually.

**运维环境**

XLP提供了一个数字化的和物理的基础架构，以帮助学生践行他们的四项基本权利，这些权利是由宪法学者劳伦斯·莱斯格的“四执行办法/股势力”相互关联：

* *架构：*人们进行特定互动时所必须的技术、行业标准，或自然法则。
* *法律：*规范人们行为的冲突解决机制。
* *市场：*鼓励或限制某种特定行为，或是整合行动方案的资产交换平台。
* *道德：*鼓励同伴相互沟通的文化规范。

XLP informs students about their rights to learn, to resolve conflicts and to defend their rights during the evolution of the learning program (litigation). Students can also exchange their assets, especially digitally transferrable and electronically exchangeable assets with other participants. In an XLP-based activity, they are required to present and record their opinions and ideas in public via digital means (such as blog posts and wiki-based websites). XLP utilizes open sourced, multi-platform digital content distribution systems, such as Git, to replicate and digitally track any digitally recordable content, from source code, design plans (technology), conflict resolution records (law), asset exchange records (market), and students’ learning reflections on blog entries (media). The schools that adopt XLP must also provide the physical learning environment to allow in-person interactive learning activities.

XLP 让学生们懂得他们在学习的演进过程中，有权力去学习，去解决遇到的冲突，去捍卫自己的权利（诉讼）。学生还可以与其他参与者交换资产，尤其是那些可电子转让的数字化资产。在XLP中，他们必须使用数字化手段（如博客和维基型网站），在公众面前记录并展示他们的意见和想法。XLP利用开源的、跨平台的数字内容分发系统，如GIT，跟踪和复制任何记录的数字内容，从源代码，到设计方案（技术）、解决纠纷的记录（法律）、资产交易记录（市场），以及在博客上记录关于学习的思考（媒体）。学校在开设XLP课程时，还要提供学习必须的物理环境，让学生在学习活动过程中积极互动。

**Participants**

XLP assigns 3 different role-types to force interdisciplinary collaboration. Teachers and school administrators called “Learning Event Organizers”, provide resources and decide the main theme of the learning program. Students and content providers (can be teachers or domain experts) divide into two roles, “Challenge Designers" and “Mission Executors". Challenge Designers (activity designers), collaboratively create tailor-made learning “games” to fit the resource constraints and contextual requirements. Challenge Designers also function as seed Mission Executors. They test and refine game designs before the Mission Executors arrive.

**参与者：**

XLP在组织跨学科合作时包含了三种角色。教师和学校管理人员被称为“学习活动组织者”，负责提供资源，并决定学习计划的主旋律。学生和内容提供者（老师或领域的专家）分为两个角色，“挑战设计方”和“任务执行方”。挑战设计方（活动设计方），根据活动背景的要求，以及资源的限制，协作创建量身定制的学习“游戏”。挑战设计方同时也是任务执行方的种子。他们在任务执行方参与之前，测试并优化游戏的设计。

XLP provides the tools to create and evolve a dynamic syllabus-like structure from the raw materials offered by the challenge designers. Mission Executors play the “games” designed and orchestrated by Challenge Designers. Game scores are categorized according to the “four forces” mentioned earlier. Mission Executors provide either digital or face-to-face feedbacks to “Challenge Designers”, during and after the learning games.

XLP课程提供的工具帮助任务执行方将挑战设计方提供的原材料编织成一个知识网络。任务执行方参与到挑战设计方精心策划和维护的“游戏”中。比赛成绩是按照前面提到的“四力”原则进行分类的。任务执行方在学习活动期间，或是活动后，向挑战设计方提供数字的，或面对面的反馈。

**Impact/Results**

Since June 2012, XLP-based orientation programs and semester-long courses have been conducted at Tsinghua University in Beijing, National Taiwan University of Science and Technology, Taylors’ University in Malaysia, Singapore University of Technology and Design, Eurasia University in Xi’An, Tianjin Vocational College of Mechanics and Electricity, and many leading high schools in China. Due to XLP’s experimental success, the Ministry of Education in China has invited the founder of XLP to serve on the Design Committee of National Curriculum Standards on Technology Education. The goal is to use XLP as a learning architecture and a learning activity design methodology for over 300 million registered students in the Chinese education system.

**影响/效果:**

自2012年6月以来，基于XLP的新生入学导引课程和整学期的课程已经在北京清华大学、台湾国立科技大学、马来西亚泰勒大学、新加坡科技设计大学、西安欧亚学院、天津机械电力职业学校和中国的重点高中中普及。由于XLP的实验成功，XLP创始人被中国教育部邀请，担任国家课程标准技术类课程的设计委员。XLP课程的目标是：使用XLP的学习架构和学习活动设计方法，服务于中国教育体系中超过300万的注册学生。

XLP is scalable and applicable to a broad range of students. A teacher from Tianjin Vocational College of Mechanics and Electricity stated his observation:

*“In the past, I can only judge students’ quality by their test scores. However, after seeing the students with low test scores can sometimes be the most productive contributors in XLP-enabled learning process, I realized XLP presents many opportunities for students to demonstrate their natural talents.”*

Mr. Wang Hong Yu, the General Manager of China’s Open Course Resource Center, stated how XLP might affect his business:

*“With shock and awe, I personally witnessed the transformative effect of a few XLP events on students. I realized that a radical transformation in education has already taken place here in China. The traditional textbook-oriented industry could no longer be lasting. We have to re-position ourselves in the future ecology of education.”*

XLP可灵活扩展，广泛适用于各类学生。天津机械电力职业学校的一位老师根据他的切身体会，这样说道：“”

中国公开课程资源中心的总经理王宏宇先生在谈及XLP可能带来的影响时，说：“”

**Engagement**

XLP forces every learning team to be a focused goal-oriented microscopic society in a digital publishing / learning workflow environment. XLP divides most learning programs into four sequential stages:

1. *Early Success:* provides resources and knowledge that enables students to kickoff their learning journey with excitement.
2. *Fail Early, Fail Safe:* Insures that the student learning assignments are challenging enough, so students can observe their short-comings and correct their course of actions in the early stage of the “game”.
3. *Convergence:* Guide students to re-combine their team structures to create a synergistic product/service with other teams.
4. *Demonstration:* Every learning program should end with a ceremonial event that allows students to summarize their learning experience and present it to other people who might be future participants of XLP.

Within the above-mentioned four stages of an XLP-based learning program, the entire organization shall leverage the “Four Forces” mechanisms to digitally engage participants in the practice of crowd learning.

**任务执行**

在一个数字出版/学习流的环境中，XLP的每一个学习小组都成为了一个具有明确目标导向的微型社会。XLP 学习过程可以划分为四个连续的过程：

1. *早期成功：*向学生提供学习所需的资源和知识，让学生满怀期待的开始学习的旅程。
2. *早期的失败，安全的失败：*确保学生的学习任务具有挑战性，这样学生能够有机会发现他们的不足之处，在游戏的最初阶段就可以修正他们的计划。
3. *融合：*指导学生重新调整团队的组织结构，以便可以和其他的团队协同完成一个完整的产品或服务。
4. *展示：*每个学习过程都以一个商业展示活动结束，让学生总结他们的学习过程，想其他未来可能参与到XLP活动当中来的人展示他们的工作成果。

在基于XLP的学习项目的上述的四个阶段中，课程的组织应该借助于四力机制，让参与者参加由数字记录的群体学习过程中来。