



Education for All through Lean and Agile Learning?

In Norway, we are lucky to have free education, including the university level. We can afford to study for years, even changing our minds and switch degree programs a couple of times. In many parts of the world, the situation is quite different. Poverty or expensive tuition may prevent many from reaching their educational potential, forcing them instead to seek paid work at a young age. The salary for low-education work is often insufficient to overcome poverty, and current trends with AI, robotics and automation are likely to make education even more essential for career success.

Two central components of university education as we know it, are courses (NTNU: typically 7.5 ECTS credits) and degree programs – the latter a package of courses following some requirements for size and content. This system has worked well for many, studying for 3-5 years (or more) and getting good jobs thereafter. However, for people who cannot afford to study for years, or who drop out from their studies for various reasons, this extensive packaging of education creates a barrier – half a degree is often worth close to nothing (Nguyen 2012). Some interesting questions:

- *Could lean and agile approaches to education provide a way out of poverty for students who cannot afford to go for years and years without income?* (Here **not** talking about education about lean and agile approaches, such as lean and agile software engineering, but the usage of lean and agile principles in the core educational process itself, e.g. flexibly taking education in short sprints rather than lengthy full-time study)
- *How to organize lean and agile education?* How does it relate to the discussion about “nanodegrees” (Waters 2015) and arguments for (Craig and Williams 2015) and against (Newton 2015) the unbundling of education (Butin 2014)? How might IT support and facilitate lean and agile education?
- *Could lean and agile education be a good idea even for Norwegian students?* Gurus in agile software development have accused traditional plan-based software development of forcing upon the customer a Big Design Up Front (BDUF), at an early stage when the customer is uncertain about needs and preferences. Similarly, plan-based education organized as fairly strict degree programs could be accused of forcing upon the young a Big Decision Up Front, at a time when some struggle to make meaningful choices (Holmegaard, Ulriksen et al. 2014).

Projects can take many different directions depending on team interest, e.g., new ways of structuring and offering university education in general, possibility for lean / agile studies in certain disciplines or occupational paths, feasibility analysis, ideas (and prototypes) for IT support, ...

References

- Butin, D. W. (2014). "Unbundle This! Why MOOCs 2.0 Are the True Disruption in Higher Education." [Real Clear Education](#).
- Craig, R. and A. Williams (2015). "Data, technology and the great unbundling of higher education." [EDUCAUSE Review](#) 50(5).
- Holmegaard, H. T., L. M. Ulriksen and L. M. Madsen (2014). "The process of choosing what to study: A longitudinal study of upper secondary students' identity work when choosing higher education." [Scandinavian Journal of Educational Research](#) 58(1): 21-40.
- Newton, D. (2015). "Higher Education Is Not a Mixtape." [The Atlantic](#).
- Nguyen, M. (2012). "Degreeless in Debt: What Happens to Borrowers Who Drop Out. Charts You Can Trust." [Education Sector](#).
- Waters, J. K. (2015). "How nanodegrees are disrupting higher education." [Campus Technology](#) 5.

