Engineering Education for a Smart Society

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The present system was designed after the Industrial Revolution, when factories and offices needed a lot of people and you will spend your whole life doing one thing.

For instance, you will spend years studying about accounting so that you will become an accountant for life. Or carpentry, engineering or medicine.

One skill, learned for life.

However, technological progress is rendering this workflow irrelevant. One cannot just learn one career path during a 4 year college and expect to do that for 40 years.

Career paths change once every 5-7 years for modern workers.
So what can be the possible solution for this engineering education system?
Solution:

The possible experimented solution for the present problem has been suggested as follows:

• **A ‘fresh’ start of the study everyday:**

When a day starts and studies are to commence, there should be a refreshing activity for the students, to boost their energy levels and maintain it throughout the day.

For example, a small aerobics or a few dance steps for 5 minutes can refresh the mind and body for all day long studies and other activities.
Sun Salutation in Chair (Surya Namaskar in Chair)

Step by step process:

1. 
2. 
3. 
4. 
Along with that the following solutions are suggested:

1. **Identity skillsets**

   Students will go through a bunch of "skill identification" tests to find out where they are good at. It is not about pass/fail, but finding the relative order of skills. Maybe you are really good at design, while someone is really good at writing. This test should be taken every year or if the student wants, even more times too - until he/she sets with the right skillsets that both match interests and core strengths.

2. **Apprenticeship**

   Allocate one hour a day of college for students to work on this skill under the tutelage of a mentor. Let us assume, one is good at programming/logical skills. He/she might have a programming mentor who will give tasks from his real life. Maybe one might help develop a simple website for his client. Or maybe he/she can help setup a robotic controller for an industrial client.

   Do real work and get real
3. Track, monitor, and assign more tasks

The progress of a student will also be tracked by a central system and that might recommend more fine tuned skills based on your performance. For instance, if you are good with mechanical aspects, maybe you can be given robotics kits to assemble.

If you get really smart at robotics, maybe a highly specialized robotics instructor at a major lab will be assigned to work with you. Such instructors want to work with smart people and get your work for almost free. You acquire valuable skills that your books can never teach.
4. Keep increasing the work time

For each year, increase the time they will spend at the skill by 1 hour. For instance, in 7th standard they will spend 2 hours a day, in 8th - 3 hours a day and so on. By the time they come to 12th, work will be more than 80% of the school. You would also be paid at this time. Instead of doing random jobs, you would be doing highly specialized jobs with high level of mastery that you love and have skills in.

More importantly, doing work should not take anything of the play time, but just take out the meaningless time spent on homework and tests. For instance, by 12th standard, you might be doing 5 hours a day of work for Google, play for 3-4 hours and have academics for 2-3 hours [make sure the 2 hours of academics is intense and exciting]. This still leaves a lot of time for sleep & other entertainment.
Thank You.