Open source learning website, where it is the students creating the code and content

As computers were created for the purpose of computing things, why are we not teaching computation (aka math) using code? Why is there no easy way to translate [LaTeX](https://en.wikipedia.org/wiki/LaTeX) into code? Why are textbooks often in static file formats that cannot be easily copied, searched, and adapted (PDF, paper)?

# Way I am thinking this would work:

1. See if there is already a something that explains the topic in a clear way
   1. If there is already a clear implementation of the idea in this application, great, just look it over and hopefully the problem is solved
   2. If there is a clear description elsewhere on the web, implement that function and ensure it is clearly documented
2. If there is not and you are struggling to understand how to implement an example, think whether the topic can be broken down. Examples:

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1. Once you understand the topic, write a function/set of functions that illustrates how the topic works
   1. The purpose should be readability, even if there are ways of writing the function that are more computationally efficient.
   2. Complex topics must be built on simpler functions (i.e., basic algebra, +,-,\*,/) and not use shortcuts (ex. sympy.diff(…) )
2. After the function is written, have a QA/UX/Peer Review feature where people validate other people's code for both errors and understandability
3. Then the function is added to the list of examples and we move on to something else

Eventually, the hope is to create a complete list of examples of all math/science/engineering formulas.

For funding, I am looking for other students to submit a plan for a small grant application about inclusive learning: <https://www.umass.edu/diversity/oei-engagement-fund>

Also, Berthiaume Center For Entrepreneurship <https://www.umass.edu/entrepreneurship/> may be a good place to start.