Let $X$ be a compact complex manifold, $\Omega K$ the space of loops on a compact connected Lie group. Atiyah pointed out that the space of based holomorphic maps from $X$ to $\Omega K$ is finite-dimensional. It is almost irresistible, when $X$ is a Riemann surface, to attempt a stable-map compactification of this space by allowing $X$ to acquire nodes. We will explain how to do this. It will allow us to define a quantum product on the cohomology of $\Omega K$, which we show to be associative.