Response to No Silver Bullet

In the event that the assumptions of the author are correct, I feel as though, perhaps, it is not possible to create a one solution silver bullet for the inherent problems in software engineering. Every supposed silver bullet that has been developed since the conception of this essay have, as the author suggests, attacked not the inherent problems of software engineering, but the accidental problems. None have addressed the four major problematic essences of designing software, complexity, conformity, changeability, and invisibility. I happen to think that because these problems are inherent in the process, there is no way to fix them.

For the same reasons as the author, I believe there is no solution to changeability. Computer hardware is constantly changing, and as a result, the software running on it must constantly change, as well. There comes a point in which you can no longer upgrade a piece of software, but it must be completely redesigned to work with new hardware. The same is true of complexity. As software becomes larger, it will undoubtably have more elements and with more elements comes more interactions and complexity. In my opinion, there is no solution to reducing the number of elements and interactions, these are inherently required to solve the given problem. Conformity is unsolvable because software engineering inherently deals with modeling the workings of some other body. In essence, this is the entirety of software engineering. I believe invisibility is also something that cannot be changed. Software engineering is completely intangible, something entirely of the mind. Due to its nature, there is no easy way to visualize it.

In closing, I feel as though the author is correct in assessing that there will never be a silver bullet solution. Because the problems are inherent in software engineering, they are unchangeable. In the attempt to solve these problems, I feel like you would be shifting away from software engineering into something not. However, although these problems will always be just that, there is no reason to say
that the field cannot be advanced, and gains in productivity and accuracy cannot be made. There are many other problems that can be fixed, and we should do just that.