1. As described in the sessions, the fourier transform frequencies spreading out are correlated with a growing inability to produce an expectation value for either position or momentum. The Heisenberg Uncertainty Principle dictates that the product of the error in each measurement must be greater than or equal to h bar over 2. An increase in knowledge of position causes delta x to decrease, so in response delta p must increase. Thus, resulting in a greater uncertainty or spreading out of the fourier transform frequencies.
2. The ending of the animation can be interpreted as having nearly absolute certainty of the momentum; as shown by the singular frequency. As we know more about one aspect of the particle, the state of the particle will collapse. Resulting in little to no knowledge about the other property.
3. I would start this argument by playing devil's advocate, in that it depends highly on the system you're working in. If the system embodies the entire universe and we know nothing about the particle other than then momentum then yes, it could be anywhere. At the same time, if we are working in a system that we understand such as vacuums and potential wells, and the particle is functioning as a wave packet then it is possible to still gain some insight into the position. As I mentioned before, the state of the particle collapses when we perform a measurement. If we measure the position of a particle it causes the particle to collapse to that state, so if we had some prior insight to the medium or the wave packet we could still produce possible values for momentum. Not to mention being able to convert between position and momentum space which is a mess of calculus and algebra on it's own.