What ethical issues could arise from the use of pervasive computing? Discuss.

Pervasive computing is a fast-growing trend of embedding computational capability into everyday objects to make them effectively communicate and perform useful tasks in way that minimizes the end user’s daily work load. i.e. a network will understand its surroundings and improve the human experience and quality of life. It makes device “smart”, capable of collecting, processing and sending data and ultimately communicating as means to adapt to the data’s context and activity. Now they are used for military, safety, healthcare, production and logistics etc.

Smarter devices and smarter systems promise to automate a lot of the boring and mundane process and decision in our lives. The world will become a better place; we will have more leisure time and fewer worries. On the downside, all those sensors and smart devices will be collecting a lot more information about us. Who will have that data and what they can do with it is major concern? GPS is tracking our every movements and surveillance are monitoring us in both public and private area. Government assumes it has the right to read all ours emails, text messages and tract every website we visit. In the name of security concern, privacy is willingly abandoned. Personal privacy could become a thing of the past. Let’s consider manufacture company and government agency won’t use those data thinking us a “Person of Interest”, what about hackers. Every smart device, every sensor’s, every input/output point can be a potential gateway. Every bit of data is valuable to someone, which might make it worth of stealing. Leaving behind just stealing a bunch of data, hackers can access our smart devices and control to harm us. It will take one smart techie with a grudge, and a less-than-secure smart vehicles could become a death trap. Witness the 2014 attracts on Home Depot target and a larger number of retailers than we’d like to remember or the 80 million person records stolen from Anthem, 2nd largest insurer in early 2015.

Every step forward holds both promise and evils. Customers should have the options of turning the data flow if they want or deciding who gets access to that data. The problem with turning off the data flow into IOT is that turns smart device back into dumb ones. These devices have simply become part of process of living. If we want total privacy, we may not be able to benefit from IOT and if we want benefit, we have to sacrifice some of our privacy. The point is every technological advance has the potential for both good and evils. So, we must support good stuff and guard against bad stuffs.