

EG 2401 Engineering Professionalism
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(Semester II 2014/15)

Sample Practice Exercise (with Sample Answers)

Real-time monitoring and surveillance, and its associated technologies: Consider the possible case of a typical popular shopping mall in a high-end tourist area of a typical developed country (where one may presume that there are suitably developed civil laws in place). These days, in view of the need for rather more comprehensive security as well as for more sophisticated management of the mall (including towards possibly further improved business developments), real-time monitoring and surveillance are commonplace in the premises of such a mall. Meantime, with the current advances in technology, it is the case that a large variety of such real-time monitoring and surveillance systems are commercially available for usage and deployment in such premises. Such advances in technology include information storage systems capable of storing many years of real-time monitoring and surveillance footages; capability of face-recognition from videos; capability of assessing emotions of subjects (including reactions to advertising, say, in the mall); capability of assessing and predicting behaviours of sizeable assemblies of persons; and so on.

1(a). Apply the analysis of “Duty-Ethics” and “Rights Ethics”, in the case of such a situation described above, to the “action” of:

- the “Management of the mall (including the Director of its Engineering Department)” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed and operated by an independent technology contractor with rather minimum supervision by the “Management” of the mall.

Here, regard the above “action” as a single composite action for the analysis. Use the approach (considered in the module) of the tabulation:

Action/ Choice	Party_#1: the “Management” of the mall	Party_#2: the general public and tourists using the mall
Ethics category ---		
the “Management of the mall...” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed		

and operated by an independent technology contractor with rather minimum supervision by the “Management” of the mall		
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Use one Table each for “Duty-Ethics” and for “Rights Ethics”.

1(b). Apply a suitable analysis of the “Ethics Line Diagram” methodology, in the case of the situation described above, to this “action” of:

- the “Management of the mall (including the Director of its Engineering Department)” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed and operated by an independent technology contractor with rather minimum supervision by the “Management” of the mall.

Use just a single Line-Drawing here for the Point-of-View of the “Management of the mall (including the Director of its Engineering Department)” as a single composite involved Party, for suitable respective problems under consideration/ points under study. Include at least 2 intermediate points (comprising either Pi, points under study, and/or SCi scenarios).

1(c). For the “action” which you have described as the “Positive Paradigm (PP)” in your answer to 1(b) above (again to be regarded as a single composite action for analysis), apply here the analysis of “Virtue Ethics” to this “Positive Paradigm (PP)”.

Again, use the tabulation:

Action/ Choice	Party_#1: the “Management” of the mall	Party_#2: the general public and tourists using the mall
Ethics category ---		
the “action” which you have described as the “Positive Paradigm (PP)” in your answer to 1(b) above		

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Sample Answers (particularly important to note that this is typically by no means exhaustive!!)

Action/ Choice	Party_#1: the “Management” of the mall	Party_#2: the general public and tourists using the mall
Ethics category --- Duty Ethics		
the “Management of the mall...” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed and operated by an independent technology contractor with rather minimum supervision by the “Management” of the mall	<p>Management satisfies duty to ensure security of mall.</p> <p>Management violates duty to ensure proper supervision of the deployed surveillance system.</p>	<p>Management satisfies duty of ensuring a safe public place for the users.</p> <p>Management violates duty in not ensuring against possible mis-use and abuse of the collected information.</p>

Action/ Choice	Party_#1: the “Management” of the mall	Party_#2: the general public and tourists using the mall
Ethics category --- Rights Ethics		
the “Management of the mall...” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed and operated by an independent technology contractor with rather minimum supervision by the “Management” of the mall	<p>Management satisfies rights to set up their choice of a suitably sophisticated surveillance system in accordance with existing civil rules.</p>	<p>Management satisfies rights of users who would expect the mall to be a safe public place for the users.</p> <p>Management violates rights of users in not ensuring against possible mis-use and abuse of the collected information on the users.</p>



Point	Ethics Line-Drawing from POV of Party #1 Management	Location from Left
NP	the “Management of the mall (including the Director of its Engineering Department)” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed and operated by an independent technology contractor with no supervision at all(!) by the “Management” of the mall. The independent technology contractor has full access and ownership over the stored information with no accountability.	Left point
PP	the “Management of the mall (including the Director of its Engineering Department)” deploying a suitably comprehensive real-time monitoring and surveillance system, which (although) is installed and operated by an independent technology contractor, is deployed & operated with full & complete supervision by the “Management” of the mall. All decisions and usage are overseen by mall Management; and all data is accessible only by mall Management. Additional safeguards include a design that ensures that all system components (hardware & software) are situated within the premises of the mall (properly secured with only access by proper authorization), and none with the independent contractor. Design and operation of the system should be in conformity with all existing civil laws.	Right point
P1	the “Management of the mall (including the Director of its Engineering Department)” deploying a suitably comprehensive real-time monitoring and surveillance system, which is installed and operated by an independent technology contractor with rather minimum supervision by the “Management” of the mall	Approx 4.0/10 from Left
SC1	the “Management of the mall (including the Director of its Engineering Department)” deploying a suitably comprehensive real-time monitoring and surveillance system, which (although) is installed and operated by an independent technology contractor, is deployed & operated with full & complete supervision by the “Management” of the mall. All decisions and usage are overseen by mall Management; and all data is accessible only by mall Management.	Approx 8.0/10

Action/ Choice	Party_#1: the “Management” of the mall	Party_#2: the general public and tourists using the mall
Ethics category --- Virtue Ethics		
the “action” which you have described as the “Positive Paradigm (PP)” in your answer to 1(b) above	<p>Management satisfies responsibility to ensure security of mall.</p> <p>Management satisfies responsibility to ensure that information collected is properly safeguarded.</p>	<p>Management satisfies responsibility to mall users of ensuring a safe public place for the users.</p> <p>Management satisfies responsibility to mall users of ensuring that collected information is kept secure and not for un-authorized access.</p> <p>Management satisfies competence, honesty & responsibility to mall users of not negligently off-loading such important security work/information to independent contractors with no accountability.</p>