## Annexure A – LIST OF INSTITUTIONS SELECTED FOR THE STUDY

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Institution / Founding Trust Name, Location</th>
<th>Affiliation, Establishment Year</th>
<th>Departments represented by respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alard College of Pharmacy / Alard Group, Hinjewadi, Pune</td>
<td>Savitribai Phule Pune University</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>2</td>
<td>Allana College of Pharmacy / MCE Society, Camp, Pune</td>
<td>Savitribai Phule Pune University, 1996</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>3</td>
<td>Balaji Institute of Modern Management / Sri Balaji Society, Wakad, Pune /</td>
<td>Savitribai Phule Pune University, AICTE, 1994</td>
<td>Computer Application, Business Administration</td>
</tr>
<tr>
<td>4</td>
<td>Indira School of Business / Shree Chankya Education Society, Wakad, Pune</td>
<td>Savitribai Phule Pune University, AICTE 1994</td>
<td>Business Administration, Commerce, Computer Application</td>
</tr>
<tr>
<td>5</td>
<td>Institute of Cost &amp; Management Studies and Research / IndSearch, Damle Path, Pune</td>
<td>Savitribai Phule Pune University Autonomous, AICTE, 1986</td>
<td>Business Administration, Computer Application</td>
</tr>
<tr>
<td>6</td>
<td>Institute of Hotel Management &amp; Catering Technology / Bharati Vidyapeeth, Dhankawadi, Pune</td>
<td>Bharati Vidyapeeth Deemed University, AICTE, 1992</td>
<td>Hotel Management, Catering Technology</td>
</tr>
<tr>
<td>7</td>
<td>Institute of Management &amp; Entrepreneurship Development / Bharati Vidyapeeth, Erandwane, Pune</td>
<td>Bharati Vidyapeeth Deemed University, AICTE, 1978</td>
<td>Business Administration</td>
</tr>
<tr>
<td>8</td>
<td>Institute of Management and Rural Development Administration / Bharati Vidyapeeth, Pune</td>
<td>Bharati Vidyapeeth Deemed University, AICTE, 1978</td>
<td>Business Administration</td>
</tr>
<tr>
<td></td>
<td>Institute Name</td>
<td>University and Affiliation</td>
<td>Specialization</td>
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<tr>
<td>9</td>
<td>Zeal Institute of Management &amp; Computer Application / Zeal Education Society, Narhe, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 2004</td>
<td>Business Administration</td>
</tr>
<tr>
<td>10</td>
<td>Jayawant Institute of Management Studies / Jayawant Shikshan Prasarak Mandal, Tathawade, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 2004</td>
<td>Computer Application, Business Administration</td>
</tr>
<tr>
<td>11</td>
<td>Maharashtra State Institute of Hotel Management &amp; Catering Technology/ Maharashtra State Government, Model Colony, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 2003</td>
<td>Hotel Management, Catering Technology</td>
</tr>
<tr>
<td>12</td>
<td>MIT College of Engineering / MAEER, Kothrud, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 1983</td>
<td>Engineering, Technology</td>
</tr>
<tr>
<td>13</td>
<td>MIT School of Management / MAEER, Kothrud, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 1987</td>
<td>Business Administration, Computer Application</td>
</tr>
<tr>
<td>14</td>
<td>MIT School of Telecom Management / MAEER, Kothrud, Pune</td>
<td>Savitribai Phule Pune University, AICTE, TSSC, 2007</td>
<td>Telecom, IT, Business Administration</td>
</tr>
<tr>
<td>15</td>
<td>Naralkar Institute of Career Development &amp; Research / Shikshan Prasarak Mandali, Shaniwar Peth, Pune</td>
<td>Savitribai Phule Pune University, 1986</td>
<td>Personnel Management, Computer Management</td>
</tr>
<tr>
<td>16</td>
<td>Ness Wadia College of Commerce &amp; Management / Modern Education Society, Joag Path, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 1969</td>
<td>Business Administration, Commerce</td>
</tr>
<tr>
<td>17</td>
<td>Poona College of Pharmacy / Bharati Vidyapeeth, Erandwane, Pune</td>
<td>Bharati Vidyapeeth Deemed University, AICTE, PCI, 1981</td>
<td>Pharmacology, Chemistry, QA</td>
</tr>
<tr>
<td>18</td>
<td>Pune Institute of Computer Technology / Society for Computer Technology &amp; Research, Dhankawadi, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 1983</td>
<td>Engineering</td>
</tr>
<tr>
<td>No.</td>
<td>Institution 1</td>
<td>Institution 2</td>
<td>Program 1</td>
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<tr>
<td>19</td>
<td>Rajarshi Shahu College of Engineering / Jayavant Shikshan Prasarak Mandal, Tathwade, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 2004</td>
<td>Business Administration</td>
</tr>
<tr>
<td>20</td>
<td>Sinhgad College of Engineering / Sinhgad Technical Education Society, Vadgaon, Pune</td>
<td>Savitribai Phule Pune University, AICTE, NBA, 1996</td>
<td>Mechanical Engineering, IT, Bio-Technology</td>
</tr>
<tr>
<td>21</td>
<td>Sinhgad Institute of Business Administration &amp; Research / Sinhgad Technical Education Society, Kondhwa, Pune</td>
<td>Savitribai Phule Pune University, AICTE, 2004</td>
<td>Business Administration</td>
</tr>
</tbody>
</table>
Annexure B – QUESTIONNAIRE

Pilot Questionnaire

1. Which of the following you are aware of or use in your teaching in your institution at present? (You can tick multiple options). Also mention how many times you use the same every week.
   a. Learning Material in CD/DVD - Use / Only Aware of / ……. Times / week
   b. Videos - Use / Only Aware of / ……. Times / week
   c. Virtual Class Rooms - ……. Use / Only Aware of / ……. Times / week
   d. e-Learning Portal - ……. Use / Only Aware of / ……. Times / week
   e. Lessons on Television Channel - Use / Only Aware of / ……. Times / week
   f. Online Tutoring - Use / Only Aware of / ……. Times / week
   g. Presentations and Images - ……. Use / Only Aware of / ……. Times / week
   h. Lessons on Radio Channels - ……. Use / Only Aware of / ……. Times / week
   i. Hardware (Tablet PC, LCDs) - ……. Use / Only Aware of / ……. Times / week
   j. Other (Specify) …………………………………………………………….. Use / Only Aware of / ……. Times / week

2. According to you, which are the most important advantages of using ICT in teaching for a higher education institution like yours? (Rank – 1 as most important…)
   a. Enhance understanding of students
   b. Ease in teaching and explaining
   c. More innovation in teaching
   d. More examples and applications can be presented
   e. Better circulation of learning material
   f. Easy access to resources
   g. More learning and exposure to teachers
   h. Transparency and engagement
i. Cost Efficiency

3. Do you prepare your e-Learning content by yourself? Myself / Use ready-made content

4. If you prepare your e-Learning content by yourself, which of the following tools you use for the same?
   a. Office Application
   b. Adobe Flash and / or Photoshop
   c. Ready HTML templates
   d. Interactivity Building Tools
   e. Other

5. How do you procure ready e-Learning content or any teaching technology tool?
   a. In-house developed
   b. Developed by myself
   c. Purchase on my own and claim to the institution
   d. My personal copies
   e. Central purchase department

6. How do you keep updating yourself about new ICT usage in teaching?
   a. No special efforts
   b. Internet
   c. Seminars and workshops
   d. Information sessions organized by the institutions
   e. Other ..................................................

7. How is any new ICT tool installed / implemented for teaching purpose in your institution?
   a. Our IT department takes care of it
   b. Vendor installs for us
   c. We do it by ourselves
   d. Other ..................................................

8. What all infrastructure facilities you have for your own use in the office?
   a. Desktop
   b. Printer
   c. Scanner
   d. Laptop
e. LAN-based network  
f. High-speed Internet  
g. Wi-fi connectivity  
h. Direct telephone number / extension  
i. Other .................................................................  

9. Which of the following facilities are available in the classroom in your institution?  
a. LCD projector  
b. Internet connection  
c. Overhead Projector  
d. Digital / Smart Whiteboard  
e. Smart Class Workstations for students  
f. Desktops for students  
g. Digital Writing Pads  
h. Other .................................................................  

10. According to you, how many new ICT tools (software, subscriptions, CD/DVDs and hardware together) for teaching have been procured by your institution in last year?  
............................................. number

11. How many hours of training programs on using new ICT tools in teaching have you attended in last year?  
a. None  
b. Less than 5 hours  
c. 6 to 15 hours  
d. More than 15 hours

12. If you are not using any or some of ICT teaching tools, what are the reasons you are not using them? (You can tick multiple options)  
  ● Information not available  
  ● None uses at our institution  
  ● We do not believe in e-learning tools  
  ● They are complex to use  
  ● Training not given  
  ● Adequate infrastructure not available  
  ● Adequate funding not available
• Other (Specify)

13. Can you name a few brands / makes of e-learning tools you are using / have used before or aware of?

(Specify)

14. Which of the following will make you use e-learning for teaching? (You can tick multiple options)
• Make it compulsory
• Training
• Incentives
• Infrastructure – Internet, PC or Laptops
• Other (Specify)
Final Questionnaire

For Founder Educator

15. According to you, which of the following are the most important benefits of using ICT tools in teaching? (1 = Most important and so on) - This is to understand if administrators or owners are aware of benefits of ICT in general. Since the new implementation has to come from the top, this ques was important to ask.
   - Empowerment to teacher
   - More innovation in teaching
   - Better teaching material
   - Easy access to resources
   - Transparency and engagement
   - Cost Efficiency

16. Do you allot enough budgets to procure ICT tools for your institution? – Does the institution have buying ability was the motive behind this Q?
   - Yes always
   - No as we have to curtail because of unavailability of funds
   - Sometimes because of other priorities
   - Not at all as ICT tools are very costly

17. ICT knowledge has been made desirable by higher education authorities. Do you think having ICT knowledge and using it in teaching can help you become more competitive and gain progress in your career? – Awareness about help of ICT in quality deliverable as well as knowledge about policies and norms set up by education authorities.
   a. No as most of my colleagues are equally ignorant about ICT usage
   b. Yes as I make sure to use ICT to my advantage

18. Do you think ICT usage in your institution will give you an edge over other institutions not using it? Same as no. 3 nd 1.
   a. Yes very much because of early mover advantage
   b. No as many of other institutions are at equal ICT usage
c. Not much

19. Do you think any of the following external factors affects your decision about ICT usage in the institution? – **Outside influencers in usage of ICT**
   a. Norms by authority agencies
   b. Initiatives by competitive institutions
   c. Changing trends in education world-wide
   d. Government initiatives in ICT in education
   e. Demand from stakeholders

20. Do you think making ICT usage mandatory will increase its spread among the higher education staff? – Your view about implementing anything novel idea like ICT and if you believe that unless it is mandatory, you will not act.
   a. Strongly Agree
   b. Strongly Disagree
   c. Not sure
   d. Agree
   e. Disagree

21. Did you follow any of the steps given below while procuring any of ICT tools for your institution? Tick as many as applicable. – How process oriented you were if at all, while procuring anything in ICT. Was any thought there while making implementation.
   a. Testing of tool
   b. Comparative Study
   c. Frequent Training to users
   d. Change management session for users
   e. Preparation of transition template
   f. None of above
For Professors

22. According to you, which of the following are the most important benefits of using ICT tools in teaching? (1 = Most important and so on)  

This is to understand if teachers are aware of benefits of ICT in general. Since the new implementation has to have support from them.

1. 
- Empowerment to teacher
- More innovation in teaching
- Better teaching material
- Easy access to resources
- Transparency and engagement
- Cost Efficiency

2. Have you learnt any new education technology through an FDP or other programs in last 6 months? – Openess to learning in general.

- Yes
- No

3. If NOT learnt, can you name reason for the same?
- No programs arranged
- I avoid technology learning at this point in my career
- I don’t understand education technology as it is complex

4. How many FDPs do you attend in a year?
- Hardly any one
- Minimum 2
- More than 3

5. How many FDPs were arranged by your institution that covered ICT in teaching or related topics in last five years? – Support by institute on training, if they organize / believe in training programs etc.

- None so far
- One every year
- Not more than 3 so far

6. Have you taken any of the following initiatives at your institution? Tick multiple options if applicable. – Willingness to adopt new things
- Introduced new teaching practice
- Tested and proposed teaching tool
- Proposed technology infrastructure changes
- Developed teaching material using ICT tools
- Created technology usage process
- Other

7. Which of the following ICT tools you are aware of or have used in teaching? (You can tick multiple options) **Awareness, usage, experience**
   - Learning Material in CD/DVD - Use / Only Aware of
   - Online Videos - Use / Only Aware of
   - Virtual Class Rooms- Use / Only Aware of
   - Lessons on Television Channel- Use / Only Aware of
   - Online Tutoring- Use / Only Aware of
   - Presentations and Images- Use / Only Aware of
   - Lessons on Radio Channels- Use / Only Aware of

8. Which of the following is readily available in your institution? – **Support from institution and owners**
   - Institution’s website
   - Official email ID
   - My Official webpage on the website
   - Dedicated and networked computer for me
   - Research software tools
   - ERP to automate institutional working
   - Database subscriptions
   - eContent in the form of CDs, DVDs, online video access
For Students

1. Which of the following technology tools have you used in the last one year at the institution? — as a constituent of education fraternity, how much they expect / adopt / given access to
   - Student Email System
   - Online Assignments
   - Access to eContent
   - Research tools
   - Other

2. How was use of ICT tools by teachers helpful to you in your learning process? — same as professor Questionnaire
   - Easy grasping of concepts
   - More interesting to read
   - Complementary source through eContent
   - Created interest in the subject
   - More examples
   - Contemporary and global
   - Gave exposure to technology

3. Do you think more use of ICT in teaching will improve your skills and employability?
   - Strongly agree
   - Disagree

4. Do you suggest any new ICT tools that your institution should use for effective teaching?

_________________________________________________________________________
Annexure C – BIBLIOGRAPHY


41 http://www.jisc.ac.uk/whatwedo/projects/socialsoftware08.aspx
42 Information Services in a Networked Environment in India, INFLIBNET Centre, Ahmedabad, pp. 1245-52
43 K. Balasubramanian, Willie Clarke-Okah, et al. ICTs for Higher Education; Background paper from the Commonwealth of Learning UNESCO World Conference on Higher Education Paris, 5 to 8 July 2009