

1 Exploration of E-Portfolio IC² Innovative Management Model
2 To Promote the Professional Development of University Teachers

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7 **Abstract**

8 As a developmental evaluation tool and a personalized learning platform, E-portfolio shows
9 great prospects in the professional development of university teachers. By drawing on the
10 innovative service model of IC² in university libraries, this article aims to explore an
11 innovative management model of IC² and apply it in the establishment and use of E-portfolio
12 so as to tamp the theoretical foundation of E-portfolio, by means of which, we can maximize
13 the function of Eportfolio, get our knowledge shared and innovated and thus promote the
14 professional development of university teachers.

15

16 **Index terms**— E-portfolio; IC² innovative management model; profession development Introduction.

17 **1 I. Introduction**

18 -portfolio, which is now widely used in Europe and America, refers to the aggregation related to learning. At the
19 atmosphere of information technology, learners take advantage of information to display and show their purposes
20 of learning, learning activities, achievements, results, exertion, progress and reflection over the learning courses
21 and results. However, it has not been long since E-portfolio was introduced to the education field in China. The
22 research by university teachers over E-portfolio and its application is still in the initial stage. Many functions of
23 E-portfolio have failed to be displayed due to the unawareness and ignorance of personnel at all levels. One of the
24 important factors is that the management and service capacity of the teaching managers is to be enhanced, for
25 the management and service capacity comes from the capacity of managers themselves. Only if they are armed
26 with the capacity, can they facilitate the healthy development of E-portfolio. In this context, on the basis of the
27 delicate management theory and the innovative service model of IC² in university library, how to establish the
28 innovative management model of E-portfolio IC² on teaching management level is of great theoretical significance
29 and practical value. Through the establishment of innovative management model, we can make the maximal
30 use of E-portfolio platform to serve for learners' life-long learning and development and promote the professional
31 development of university teachers by knowledge-sharing and innovation.

32 **2 II. Connotation of IC² Innovative Management Model**

33 IC² is a service model initiated by the library of Shanghai Jiaotong University. This article applies its innovation
34 to the establishment of innovative management model of E-portfolio on teaching management level which is
35 rooted in "Information Commons" and takes "Innovation Community" as its distinguishing feature. Therefore,
36 we need to make out the basic connotation of IC² Innovative Management Model based on our understanding of
37 the two models.

38 **3 a) Information Commons**

39 Information Commons (IC1) is used in response to the demand of the learners who have access to the management
40 and service of E-portfolio and the open learning environment. It integrates the convenient Internet, the soft
41 and hardware facilities of the computer with overall functions with rich resources of knowledge corpus (including

5 III. PROBLEMS OF TEACHERS' E-PORTFOLIO IN

42 various forms such as printing type, digitalization and multi-media). Based on the original Eportfolio, virtual and
43 entities knowledge community is established for open learning and communication to nurture the information
44 literacy of the learners, promote their learning, exchange, cooperation and study and increase the usage of
45 E-portfolio with the mutual support of the skilled educational administration department, computer experts,
46 multimedia workers and supervisors. subjects. IC2 takes learners as its center, innovation its mainline and
47 community-based management and service its carriers and forms. Thus was created the Eportfolio community,
48 bringing together the relevant resources according to the needs of learners and giving more new meaning to
49 Information Commons by mining and extracting their supportive environment and information. IC2 provides
50 effective professional guidance for E-portfolio application and maximizes and optimizes the function of E-portfolio
51 Information Commons and thus promotes the professional development of university teachers.

52 4 c) Basic connotation of IC² innovative management model

53 From the perspective of teaching management, the IC² innovative management model can be interpreted as
54 follows: the functions of the two abovementioned IC models complement each other and optimize as one, resulting
55 in the effect of multiplication and even index which cannot be achieved by either of the two service models. The
56 formula can be described as: IC² = Information Commons (IC1) × Innovation Community (IC2). IC² innovative
57 management model aims to achieve the enhancing effect of square-class management and service performance
58 through the integration of IC1 and IC2 and the maximization of each of their advantages. [2]

59 5 III. Problems of Teachers' E-Portfolio in

60 Universities and Significance of IC² Innovative Management Model a) Problems of teachers' E-portfolio in
61 universities

62 Teachers' E-portfolio, as a life-long learning and developmental evaluation tool, has a tremendous impact on
63 education and teaching in the information age. However, as the domestic and foreign study on Eportfolio is still
64 being explored, the elaboration of its definition, content and role differs from researcher to researcher. Besides,
65 E-portfolio has still not been well applied to the learning field, as the concept that Eportfolio is the learning
66 environment of all learners has not been established. Thus, if we conduct a further study over the E-portfolio
67 status of teachers at home and abroad, we can easily find that E-portfolio still lacks some basic elements, which
68 leads to the failure of displaying its proper function, as is illustrated in the following six aspects: (1) The teaching
69 administrative department hasn't set clear objectives over the establishment of E-portfolio, which is not good
70 for promoting the professional development of university teachers. (2) The structure of E-portfolio is imperfect,
71 so it cannot fully reflect its functional properties. (3) The constitute content of E-portfolio lacks depth and
72 width. For example, the pedagogical reflective thinking is not comprehensive, which only centers on the list
73 of teaching facts instead of making analysis and summarization of these facts on the theoretical level. So the
74 teachers cannot gain experience from these sporadic facts without the formation of regularity. In addition, if
75 the teachers have selected the teaching cases that are not representative, it is difficult to build up dynamic
76 educational resources. (4) Due to the inadequate understanding and exploring of the function of E-portfolio,
77 its nature has not been reflected. (5) Eportfolio between teachers and its relationship with curriculum need to
78 be further integrated. (6) The collaborative learning and assessment with the help of E-portfolio has not been
79 sufficiently carried out. The reason why we have the above-mentioned problems mainly lies in our insufficient
80 knowledge of E-portfolio and poor understanding of its nature. In addition, the resources of E-portfolio are
81 neither open and portable nor learner-centered, it is difficult to stimulate learners' interest. Therefore, how to
82 establish E-portfolio IC² innovative management model from the perspective of teaching administration to get
83 the most function out of E-portfolio has important theoretical significance as well as practical value. [3]. b)
84 Significance of IC² innovative management model IC² innovative management model is an important way to
85 promote the professional development of university teachers.

86 E-portfolio IC² innovative management model in university teachers, as a theoretical point of the current
87 research in the educational technology field, is different from the traditional library IC² innovative services.
88 Eportfolio, established according to IC² innovative management theory, can not only be a cognitive tool in
89 teaching and a tool for evaluation of the learning environment, but can also build up learning community in
90 teaching activities to promote reflection and improve the learners' self-diagnosis and continuous selfimprovement
91 ability. E-portfolio IC² can foster the learning of ill-structured knowledge and promote the formation of E-
92 portfolio team by acting as the exchange and innovative platform for teachers-and-students' study and research.
93 What's more important, E-portfolio IC² can achieve the function of E-portfolio effectively and promote knowledge
94 sharing and innovation, which makes its users willing to use E-portfolio as their learning environment or cognitive
95 tools to facilitate the professional development of university teachers.

96 IC² innovative management model has reinforced the theoretical basis of E-portfolio.

97 From the current situation of E-portfolio in university teachers, due to the lack of management theory, the
98 contents of E-portfolio are merely the personal knowledge and experience without building an E-portfolio system
99 based on new systematic study and evaluation. The current E-portfolio is not well guided by system theory
100 and is poor in the organization of its contents, file classification and exchange, thus impeding the further
101 development of E-portfolio. The core of IC² innovative management is sharing and innovation. We apply the

102 concept of IC² innovative management to the design and application of Eportfolio. We can carry out effective
103 systemic development, storage, transmission, exchange and sharing over the E-portfolio resources by using the
104 information technology medium of E-portfolio to make E-portfolio truly serve the university teachers, increase
105 teachers' innovative ability and, finally, promote the professional development of teachers. In this way, we find a
106 systematic theory as the guiding ideology for Eportfolio development.

107 IC² innovative management model has effectively promoted the comprehensive development of E-portfolio.

108 We use the new theory to explore the nature of E-portfolio in university teachers to effectively promote
109 their professional learning, research and teaching capabilities through knowledge sharing and innovation of E-
110 portfolio. IC² innovative management model has reinforced the theoretical basis of E-portfolio. Combined with
111 IC² innovative management model, E-portfolio can achieve its functional properties one by one. This combination
112 can not only help expand its applications but also dig out its functional value effectively. It is a useful attempt
113 for E-portfolio research and application in universities..

114 **6 IV. Establishing E-Portfolio Ic²**

115 Innovative Management Model to Promote the Professional Development of University Teachers a) Basic
116 principles of establishing E-portfolio IC² innovative management model First of all, the management thinking
117 of "information sharing and innovation community" should be reflected in the establishment of E-portfolio IC²
118 innovative management model. Besides, we should abide by the following principles:

119 Learner-centered. The establishment of Eportfolio IC² innovative management model should be learner-
120 centered. We should know about the current and future needs of learners and provide services and be responsible
121 for them. In other words, we should put the learners in the most important position in the whole management
122 system.

123 Continuous improvement. Continuous improvement is a new requirement put forward by teaching managers in
124 accordance with learners and the law of teaching. We should adhere to the continuous improvement of E-portfolio
125 quality, which is the goal and soul and affects all aspects of E-portfolio quality in the whole management process.

126 People-oriented. Teaching administrative departments should attach great importance to the development,
127 utilization and management of human resources and emphasize full participation, teamwork and coordination
128 with full respect of human values.

129 Systemic planning. We should take E-portfolio as an organic system, follow the overall optimization principles
130 and establish a scientific mechanism through comprehensive planning and systemic designing of Eportfolio in
131 university teachers.

132 **7 b) Basic steps of establishing E-portfolio IC² innovative 133 management model Formation of Information Commons**

134 We can draw a schematic diagram as follows: support and understanding of senior managers ? establishment of
135 the entities and network platform of Eportfolio ? knowledge reserve of E-portfolio ? education and training ? the
136 establishment of interdisciplinary knowledge base in teachers (learners) ? the formation of collaborative platform
137 based on the integration of E-portfolio and subject knowledge ? the formation of Information Commons.

138 Firstly, the implementation of E-portfolio IC² innovative management cannot be realized without the full
139 understanding and support of senior managers. Only with senior leaders' deep understanding of E-portfolio IC²
140 innovative management can it direct the systemic work of E-portfolio properly.

141 Secondly, we should put up the entities and network platform of E-portfolio. Managers must make clear
142 the implementation scope of E-portfolio. When formulating plans for the professional development of university
143 teachers, managers should systematically arrange the establishment of entities and network platform based on the
144 analysis of the needs of different learning groups, set the objectives of E-portfolio promoting teachers' professional
145 development, establish a planning team of E-portfolio promoting the professional development of university
146 teachers, and put up the entities and network platform of E-portfolio to meet the needs of learners and the
147 professional development of university teachers.

148 The third step involves the knowledge reserves of E-portfolio. Teaching managers need to establish a
149 comprehensive and systemic E-portfolio knowledge base by means of search engines, knowledge portals, knowledge
150 maps and other channels.

151 The fifth step, as well as a crucial step, involves the establishment of interdisciplinary knowledge base in
152 university teachers. We transfer staff from different departments to form disciplinary knowledge base team
153 responsible for the establishment and continuous improvement of the disciplinary knowledge base. In this process,
154 the team members modify and improve the previously established disciplinary knowledge base through exchange
155 of information and feedback of learners.

156 The sixth step is to form a collaborative platform based on the integration of E-portfolio with academic
157 knowledge. Based on the above steps, we develop and use E-portfolio and academic knowledge base and build
158 a collaborative platform relying on E-portfolio entities and network platform. On the platform was formed the
159 Information Commons that promotes knowledge innovation and sharing as well as the professional development
160 of university teachers.

161 **8 Formation of Innovation Commons**

162 The schematic diagram of Innovation Community can be illustrated as follows: The Information Commons
163 ? E-portfolio Community (including education subject specialists, education technology experts, learners and
164 teaching managers) ? processing and refining of the Information Commons ? innovation ? continuous quality
165 improvement of E portfolio.

166 On the basis of Information Commons, the E portfolio community composed of subject experts, educational
167 technology specialists, learners and teaching administrative staff come into being. The community share common
168 knowledge, organize seminars and foster the mutual communication between disciplines, between teaching
169 administrative staff and teachers, between teachers and educational technology experts. In addition, the
170 E-portfolio community achieves its knowledge innovation and continuous improvement through reflection on
171 teaching, learning diaries and other summaries over collaboration and the processing and refining of information
172 space.

173 **9 V. Conclusion**

174 The establishing and running of Information Commons and Innovation Community is a systemic and long-lasting
175 process, involving not only the entity space, the software resource development, device configuration, personnel
176 structure, organization and management, the change of learning concept, the change of service capacity and
177 quality assessment and improvements, but also the contact and cooperation with other departments on campus.
178 Therefore, Eportfolio IC² innovative management is still faced with many challenges. In the context of changes
179 in the access to information and changes in learning and teaching methods, this article puts forward a concept
180 and thinking mode beyond the traditional framework in order to attract more follow-up studies to maximize the
181 function of E-portfolio and promote the professional development of university teachers.

182 **10 VI. Acknowledgment**



Figure 1:

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185 [Luescher and Sinn] 'Portfolios: Conceptual Foundations and Functional Implications'. Andreas Luescher , John
186 W Sinn . *The Journal of Technology Studies* 62 p. .

187 [Carney (2004)] 'Setting an agenda for electronic Portfolio research:A framework for evaluating portfolio
188 literature'. J Carney . *American Educational Reasearch Association annual conference* March,2004.

189 [Goodson (2007)] 'The electroic portfolio:Shaping an emerging genre'. F , Todd Goodson . *Journal of Adolescent
190 &Adult Literacy* No6:March,2007. 50.