

## **eFolio Minnesota for Lifelong Learning: Results of the First Phase of Research**

The use of eFolio Minnesota has grown rapidly, passing 15,000 users in the summer of 2004. In order to learn how eFolio is being used, the Minnesota State Colleges and Universities commissioned Darren Cambridge, a faculty member at George Mason University and a leader of several national and international electronic portfolio initiatives, to study eFolio. The first phase of this research, a survey of approximately 500 eFolio users, is now complete. The second phase, interviews with eFolio users across the state and content analysis of their portfolios, is underway and scheduled to conclude in the spring of 2005.

### **Evidence of Use in Lifelong Learning**

The survey results provide strong evidence that eFolio is being used for lifelong learning by a wide range of Minnesotans. While the highly educated are overrepresented, the users of eFolio look like Minnesota in terms of age and race. Educators, students, and workers alike are using eFolio frequently and at high levels of satisfaction and perceived effectiveness for all of the major functions of portfolios. Complex patterns of correlation between these functions suggest that eFolio is helping users integrate different aspects of their educational and professional lives, with educational planning at the center. Frequent shifting of roles across the functions shows that eFolio is being used in different phases of life over time. Overall, users report a significant level of impact on how they think about their learning and how they interact with others within their organization. The success of this activity seems to be largely self-directed, independent of the level of support individuals receive from their schools, employers, or workforce development centers.

### **Representative Demographics for Age and Race**

Those responding to the survey were statistically equivalent to a random sample of residents of Minnesota in terms of age, race and ethnicity. The age of users ranged from 16 to 66, with a median age of 35. Surprisingly, no variable showed a strong correlation with age, suggesting that older users find eFolio as effective and easy to use as members of the younger generations. Significantly less men than women responded to the survey, and respondents had a much higher level of educational attainment, on average, than residents of the state.

### **Multiple and Connected Uses**

Cambridge's previous research on how electronic portfolios are used worldwide identified six major functions of portfolios: educational planning; documenting knowledge, skills, abilities, and learning; tracking development within a program; finding a job; evaluation within a course; and performance monitoring and evaluation. eFolio users found the service useful for all these functions, as illustrated in Table 1. For most uses, they were satisfied with eFolio and found it helpful, employing it one or more times over one semester or more. Although users found eFolio to be less effective in supporting a job search, finding a job was the most popular purpose for which users planned to use the service in the future. Key specific applications of eFolio included integrating formal and workplace learning, development of technology skills, tracking learning in an academic program over time, classroom evaluation, performance review, and early career monitoring.

Almost all users used eFolio for multiple purposes. Users' evaluations of the functions of eFolio were very strongly and complexly correlated. This high level of interrelation suggests that eFolio helps users integrate multiple activities related to lifelong learning across contexts and time within

single space. Educational planning has the strongest and most complex set of connections with other uses, evidence that it plays a central role in portfolio practice.

Function	Used	Satisfied	Found helpful	One or more times per semester	One semester or more
Educational Planning	56%	65%	40%	37%	44%
Documenting Knowledge, Skills, and Abilities	75%	45%	42%	38%	42%
Tracking Development	42%	53%	48%	47%	46%
Finding a Job	47%	33%	37%*	27%**	40%
Evaluation within a Course	40%	47%	45%	54%	53%
Performance Monitoring	36%	49%	47%	36%	34%

\* found somewhat helpful

\*\* less than once per year

*Table 1: eFolio Usage, Satisfaction, and Effectiveness*

### **Fluid Roles**

When a resident signs up for an eFolio account, he or she identifies himself or herself as primarily a student, educator, or worker. However, over 27% of the time, when using eFolio for a particular purpose, users assumed a different role. The frequency of role shifting was fairly even across the six primary functions and from role to role. The prevalence of role shifting indicates that eFolio users are employing their portfolios beyond the context in which they were introduced to the tool. Students are using eFolio as they move into the workforce. Workers are using eFolio to plan continuing education. Educators are using their portfolios to integrate their teaching with their professional work beyond the academy. Such transfer of learning across settings and integration of activities between contexts are key outcomes of successful lifelong learning.

### **Mixed Evidence of Impact**

Responses to questions about the impact of eFolio concentrated around marginal indicators. 55% of users reported that use of eFolio had little or some impact on their way of thinking about education and learning, and 48% perceived the same level of impact on their interaction with others within their organization. However, a significant minority saw a greater impact, with 18% reporting a substantial or great change in their thinking. The strongest predictors of high impact were effectiveness and satisfaction for educational planning and high stakes uses, such as evaluation within a course and performance review.

### **Self-Directed Learning**

The use of eFolio for a wide variety of uses and across roles appears to be directed by the users themselves, rather than due to the influence of institutions supporting them. The degree of support provided by schools, universities, employers, and workforce developers showed no significant correlation with any of the uses or evaluation criteria in the survey. However, most users reported being introduced to eFolio formally through a class or workshop.

*All evidence from this first phase points to the conclusion that eFolio Minnesota is being used as intended, to facilitate lifelong learning for diverse group of residents over time and across educational and professional contexts.*

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