

Aligning People, Processes and
Technology:
Recurring Issues in the Design
and Implementation
of eLearning, eHealth and
eBusiness Infrastructure

Jenny P. Ure

A thesis submitted in partial fulfilment
of the requirements of Edinburgh
Napier University, for the award of
Doctor of Philosophy by published
works

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Dr Janet Hanley

My family and friends.

DECLARATION OF AUTHORSHIP

I declare that this is my own work, and has not/is not being submitted for any other qualification, or to any other institution. In every first-author paper included in this application, I was the principal or only qualitative researcher, and responsible for designing, carrying out and writing up the qualitative element of the work in each publication, and joint author of Core Paper 3, where both authors contributed equally as joint coordinators of the research.

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APPENDED PUBLICATIONS (VOLS.2,3)

Volume 2: eLearning; eBusiness

Core Papers 1-3

Volume 3: eHealth

Core papers 4-9

ABSTRACT

This PhD by published works explores recurring issues in the design and implementation of eLearning, eBusiness and eHealth infrastructure at scale. It takes a socio-technical systems perspective on recurring issues in design/implementation, drawing on qualitative and collaborative research over a decade.

The topic is relevant to policy and practice in an increasingly digitally-mediated economy where costs and risks are high, and where the scaling of systems across multiple distributed communities reconfigures work practices in ways which have implications for implementation, for policy, for research and for professional development.

The thesis reviews design and implementation problems that cut across these three domains and some of their implications in these areas. It draws conclusions about the importance of involving users more inclusively in the research, redesign and management process (a) as a means of ensuring more cost-effective design, and (b) as a vehicle for managing a change process that reconfigures, roles, risks and resource allocation.

It contextualises the research in an extensive review of the literature, showing how evolving visions / paradigms have shaped the way technical and human infrastructures are aligned in system design - from closed systems through to more generative and open systems that leverage the local knowledge and agency of user communities to greater advantage.

The publications contribute to the emerging body of literature on the alignment of the social and the technical in digital systems, the evolution of different paradigms, and the development of strategy in this regard. It is also intended to have more direct practical applied value in flagging the recurring socio-technical and socio-political issues that impact on the success of investments in IT in the public sector, and the potential for transfer of these experiences across domains and across regions.