

## In this issue

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### In this issue: innovation in design and implementation in health informatics

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#### INFORMATICS TO SUPPORT NATIONS THAT ARE LESS RESOURCE RICH

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*In this issues* provides evidence that good design can facilitate implementation. However, *this issue* also continues an ongoing theme that we must not make assumptions about the effectiveness of IT; as scientists, we should continually question and challenge.<sup>1</sup>

Our first paper explores how careful planning is needed to implement computerised medical records (CMR) in less resource rich countries. Our first paper describes how the open source Bahami system (<https://www.bahmni.org/>, a front end for OpenMRS <http://openmrs.org/>) has been implemented in Nepal.<sup>2</sup> Our next paper also looks at the less resource rich, but this time how IT systems in community health facilities might help low-income individuals and families avoid potentially disastrous gaps in their public health insurance.<sup>3</sup>

#### PROS AND CONS OF THE COMPUTER IN THE CONSULTATION

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Compeau and Terry describe how, even though it has shortcomings, health information exchange has benefits for primary care. A challenge with such studies is the risk of selection bias with a low response rate (<50%). Notwithstanding the study usefully catalogues benefits and challenges.<sup>4</sup> Our next study reports how the top concern of CMR users is that it interferes with their relationship with the patients – with a marvellous quote ‘It is like texting at the dinner table’.<sup>5</sup> This study is congruent with your editor’s observations from many video studies; the computer interferes with the doctor–patient relationship but there are tradeoffs!<sup>6</sup> A systematic review, published within the pages of this journal, reported positive biomedical features of CMR use,<sup>7</sup> though its impact on relationships was more negative.<sup>8</sup>

#### QUESTIONING THE RELIABILITY AND VALIDITY OF TECHNOLOGIES

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Parpinel et al. test different methods of heart rate monitoring on different mobile phone platforms against a gold standard monitor. This is a simple but very useful challenge to the assumption that mobile devices accurately measure vital signs.<sup>9</sup> Similarly, Shaw and McGuire’s review of geographic information system technology concludes that improvements need to be made in the quality of data input if proper conclusions are going to be made from the use of these technologies.<sup>10</sup> Hagger-Johnson et al. looked at the pseudonymisation algorithm<sup>11</sup> used in the English NHS to link together hospital and other data. This approach to pseudonymisation has never been

reviewed and is topical because pseudonymisation is included within the new EU Data Protection Regulation in 2016 as a privacy protecting measure.<sup>12</sup> They found gaps with marked disparities and suggest how these might be reduced.<sup>13</sup> Our Editorial follows this theme. Bond challenges the assumption in the Autumn BCS publication *IT Now* that technology should stream data towards clinicians (many of whom are already overworked) instead of using it to foster self-management support.<sup>14</sup> Streaming big data towards your family physician may be some peoples' utopia, but is more likely to represent dystopia (Oxford English definition: an imagined place or state in which everything is unpleasant or bad).

## SUPPORTING TECHNOLOGY WITH IMPACT

Cresswell et al. describe how their electronic prescribing toolkit has been used and had impact. In a survey with a 60% response rate, 92% were familiar with their toolkit and 66% reported using it. Whilst it can be argued that evaluation should be independent,<sup>15</sup> and the overwhelmingly positive response is reassuring. There were suggestions for improving the toolkit, and this illustrates the impact and importance of literature to support technology.<sup>16</sup> Finally, we publish a letter from Gofine and Clark proposing the use of Slack team messaging platform in research groups.<sup>17</sup>

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