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The impact of mobile technology on assessment

*How mobile should Online Assessment really be?
Discussion paper with comments from Dr Achim Preuss,
co-founder and MD of the cut-e Group*

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In this paper, Dr Preuss co-founder and Product Director of the *cut-e* Group talks about what is really important when going mobile with assessments and how to use a different delivery platform without compromising testing principles. We discuss the roles of fairness and accessibility and to what extent mobile testing is applicable to all assessment situations?

A brief history

Not so many years ago, recruitment testing was carried out in group settings: candidates came for interview and sat at desks to complete paper-based questionnaires. These were then marked with a scoring key, comparisons or norms looked up in a manual or book and results written down. For personality, motivation or values questionnaires the profile was drawn out by hand – and then the interpretation began. A huge time investment by all parties and the potential for human error was high. And then came PC-based assessment, which speeded things up, took away the human error but still required candidates to travel.

The revolution of online technology changed all that. Candidates could complete tests at home, at an Internet café, at work – anywhere with the results fed through to the recruiting company. But then came the debate about the tests themselves and whether paper to on-screen assessments measured the same things – and could HR or Recruiting practitioners, trust candidates to be the ones completing the tests remotely. So tests written for on-screen application were developed and validated – and parallel tests designed for use for use with candidates later in the selection process.

Bringing us up-to-date – the move to mobile devices
But the world has moved on again. Candidates now access technology 'on the move' and with 90% of all job seekers browsing for jobs on their mobile or smart phones, it's clear that such mobile technology opens up new possibilities for assessment.

Will applicants complete and submit job applications online, expect to complete tests, interact with the HR department via their smart phone?

The cut-e assessment strategy

Over the years *cut-e* has been at the leading edge of applying the very best parts of technology that development affords, with the testing principles that are paramount to robust assessment.

Dr Achim Preuss explains, "We can do this because not only do we have the psychometric and psychological rigour from our test developers, but we invest heavily in keeping abreast of changes in technology. But at the core is the test – and we see the technology as the delivery.

There is a fundamental question, how can we get better people to apply to and be identified by our clients?"

The answer has many parts:
- Develop a robust assessment test that accurately and reliably measures what is needed.
- Make it fun and enjoyable – a positive experience – for the applicants.
- Tests need to be constructed in a way that they are fair to all participants whether this relates to disabilities, education, culture, age or gender.
- Present this to applicants in a way that they want to complete it but still supports their
- Ability to perform optimally – and this means online via a tablet.
- Adapt the test to reflect how the candidate is performing on the test so the best information is gleaned in the shortest amount of time.
- Support the employer branding through the use of tailored colours and logo, and the smooth integration with their own processes so that successful candidates are highlighted and managed through the recruitment process as speedily as possible.

Taking action: adapting assessment strategy to mobile technology

Testing in the future also needs to maximise the combination of technology with psychometrics. Adaptive testing is not new but because of the speed of technology, is now more easily applied to selection tests. In such tests, the question items presented are based on the previous response patterns of a candidate. This means that a more able candidate who is getting answers right leaps forward to answer more difficult items in the test rather than going through all the different stages of difficulty and then, item difficulty adjusted down when they have reached their 'level.'

Dr Preuss comments on this "Adaptive testing is a sophisticated and valuable approach to assessment. Getting more relevant information from a test taker - in less time - by adapting to the test takers' responses optimises testing time i.e. shortens the duration. Future developments will take even more differentiating information from a test taker by analysing the entire response process in all facets on the fly.

Our development team have been monitoring and trialling mobile technologies to determine how we can best use it with assessment. We believe we are one of the few testing providers doing this.

This research now means we are able – and are in the process of - adapting existing *cut-e* instruments to mobile use and developing new instruments for specific client needs."

How mobile should mobile testing be?

Technology will continue to progress rapidly and it's clear there are the opportunities to harness the capabilities. The fundamental question is how do we deploy these?

Dr Preuss explains, "We're often asked if candidates can complete our tests on their smart phones. Technologically we are well able to meet this challenge. But we need to consider the context of the test. We differentiate between 'low stake' and 'high stake' situations. Low stake e.g. gamification gimmicks, often used in candidate attraction, can well be completed on smartphones, in the tram or pub. But where a test is high stake, we need to ensure fairness, equal opportunities and similar conditions for applicants – so we never intended high concentration, time-critical tests such as numerical reasoning to be completed on the move, on a smartphone on the train or somewhere where candidates are unlikely to perform at their best."

The impact of mobile technology

 "For these reasons we have decided that only those instruments which are not time-sensitive such as our personality questionnaire shapes, views, squares, Situational Judgement Questionnaires or 360 questionnaires will become smartphone-friendly. Our time critical ability or skills tests are being adapted for use on tablets. These mobile devices are still portable but more likely to be used in a stationary, single position conducive to concentration and focus on completing a test. There are clearly challenges in preparing tests for mobile usage but we believe strongly that these can be overcome – and are embracing the challenge."

For more information and related documents about how to get the most out of Online Assessment, and other related information, please refer to www.cut-e.com

About the author Dr Achim Preuss
Since beginning his career 1989 in business psychology and applied computing science, Achim has run successful HR consultancy and IT-development projects for companies like Beiersdorf, Credit Suisse, DaimlerChrysler, L'Oreal, 3M and Siemens. Today Achim Preuss is managing director of international assessment specialist *cut-e*.

His main areas of expertise are job analysis, knowledge engineering, and e-HR with bespoke online assessment and development solutions. Over the years, he has published a number of articles and white papers on knowledge engineering, prediction methodologies and e-HR. Achim regularly speaks at psychometric and psychology conferences all over the world.

cut-e s world leader in the design and implementation of innovative online tests and questionnaires for recruitment, selection and development. *cut-e* helps companies identify people with the right capabilities and cultural fit to deliver optimal business results. *cut-e* carries out over 4 million assessments per year in over 70 countries and 40 languages.

Founded in 2002 by Dr Achim Preuss and Andreas Lohff, the company is based in Hamburg, Germany and now has a presence in 27 countries. *cut-e* counts a large number of leading employers amongst its clients, including Audi, Barclays, Boeing, BP, Burger King, Carlsberg, Colgate, Dell, Lufthansa, Monster.com, Ricoh, Siemens, Starwood Hotels & Resorts and Volkswagen.