Call for Papers of Special Issue
on "Drawing and Handwriting Processing for User-Centered Systems"
IEEE Transactions on Human-Machine Systems

There has been significant progress in the automatic processing of handwriting and drawing, especially in computational models to generate, analyze and recognize pen tip and gesture trajectories in various applications. While it was thought that manuscript production would decrease with the dissemination of computers, today the trend is reversed with the boom of new touch and pen-based interactive devices. Progress in automatic processing of handwriting and drawing, both on-line and off-line, opens real opportunities to produce a true "graphonomics" continuum from paper to digital practices. One key challenge is to bring pattern recognition into reality with applications, taking advantage of the implicit or explicit human-machine interactions.

In this special issue, we invite new and original scientific work taking into account the user in the drawing and handwriting processes in terms of usability, efficiency, collaboration, interaction, cross-learning, and related topics. Consequently, papers are solicited that cross the various communities studying these important and complex human-machine relationships in "graphonomics" fields: pattern recognition, humanities, neuroscience, arts ─ by considering human centered point of views to design, model and test new advances in these research areas.

Topics of interest include (but are not limited to):
- Pen and touch-based human-machine interactions with gesture or drawing interpretation.
- Human-machine cooperation in education: semi-automated handwriting evaluations; teaching and learning handwriting based on children-machine interaction.
- Adaptive, incremental, evolving learning approaches for: handwriting recognition (off-line and on-line), writer identification and recognition, signature verification.
- Document processing based on human-machine interaction loop: historical document, sketches
- Human-machine cooperation in medical applications based on handwriting analysis, motor control, learning and adaptation of writing and drawing movements in neuroscience
- Usability, efficiency, collaboration, interaction experiments for applications to evaluate human-machine cooperation in the graphonomics field.
- Interaction with mobile devices using drawing and handwriting.
- Multi-language handwriting processing.

Important Dates:

Paper submission due date	October 15, 2015
Completion of first round of reviews	January 15, 2016
Revised manuscript due date	April 1, 2016
Final decision notification	May 1, 2016
Final version of the manuscript due	June 1, 2016

Papers should be submitted to **http://mc.manuscriptcentral.com/thms** with a cover letter including the statement "This manuscript is submitted for the special issue on Drawing and Handwriting Processing for User-Centered Systems". For detailed submission information, please refer to "Information for Authors" at **http://www.ieee-smc.org/publications/thms-info-for-authors.pdf**

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