[30]   Y.-J. Chang, S.-F. Chen, and J.-D. Huang, "A kinect-based system for physical rehabilitation: A pilot study for young adults with motor disabilities," *Research in developmental disabilities*, vol. 32, no. 6, pp. 2566–2570, 2011.

[31]   S. Consolvo, D. W. McDonald, T. Toscos, M. Y. Chen, J. Froehlich, B. Harrison, P. Klasnja, A. LaMarca, L. LeGrand, R. Libby *et al.*, "Activity sensing in the wild: a field trial of ubifit garden," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2008, pp. 1797–1806.

[32]   F. Buttussi and L. Chittaro, "Mopet: A context-aware and user-adaptive wearable system for fitness training," *Artificial Intelligence in Medicine*, vol. 42, no. 2, pp. 153–163, 2008.

[33]   R. De Oliveira and N. Oliver, "Triplebeat: enhancing exercise performance with persuasion," in *Proceedings of the 10th international conference on Human computer interaction with mobile devices and services*. ACM, 2008, pp. 255–264.

[34]   A. Möller, L. Roalter, S. Diewald, J. Scherr, M. Kranz, N. Hammerla, P. Olivier, and T. Plötz, "Gymskill: A personal trainer for physical exercises," in *Pervasive Computing and Communications (PerCom), 2012 IEEE International Conference on*. IEEE, 2012, pp. 213–220.

[35]   M. Muehlbauer, G. Bahle, and P. Lukowicz, "What can an arm holster worn smart phone do for activity recognition?" in *Wearable Computers (ISWC), 2011 15th Annual International Symposium on*. IEEE, 2011, pp. 79–82.

[36]   I. Pernek, K. A. Hummel, and P. Kokol, "Exercise repetition detection for resistance training based on smartphones," *Personal and ubiquitous computing*, vol. 17, no. 4, pp. 771–782, 2013.

[37]   C. Strohrmann, H. Harms, G. Tröster, S. Hensler, and R. Müller, "Out of the lab and into the woods: kinematic analysis in running using wearable sensors," in *Proceedings of the 13th international conference on Ubiquitous computing*. ACM, 2011, pp. 119–122.

[38]   Y.-C. Tseng, C.-H. Wu, F.-J. Wu, C.-F. Huang, C.-T. King, C.-Y. Lin, J.-P. Sheu, C.-Y. Chen, C.-Y. Lo, C.-W. Yang *et al.*, "A wireless human motion capturing system for home rehabilitation," in *Mobile Data Management: Systems, Services and Middleware, 2009. MDM'09. Tenth International Conference on*. IEEE, 2009, pp. 359–360.

[39]   K.-H. Chang, M. Y. Chen, and J. Canny, *Tracking free-weight exercises*. Springer, 2007.

[40]   E. Velloso, A. Bulling, and H. Gellersen, "Motionma: motion modelling and analysis by demonstration," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2013, pp. 1309–1318.

[41]   R. T. Floyd, C. W. Thompson *et al.*, *Manual of structural kinesiology*. McGraw-Hill New York, NY, 2009.

[42]   H. Harms, O. Amft, G. Tröster, M. Appert, R. Müller, and A. Meyer-Heim, "Wearable therapist: sensing garments for supporting children improve posture," in *Proceedings of the 11th international conference on Ubiquitous computing*. ACM, 2009, pp. 85–88.

[43]   S. Morrison, P. Mills, and R. Barrett, "Differences in multiple segment tremor dynamics between young and elderly persons," *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, vol. 61, no. 9, pp. 982–990, 2006.

[44]   H. Watz, B. Waschki, T. Meyer, and H. Magnussen, "Physical activity in patients with copd," *European Respiratory Journal*, vol. 33, no. 2, pp. 262–272, 2009.

[45]   F. Pitta, M. Y. Takaki, N. H. de Oliveira, T. J. Sant'Anna, A. D. Fontana, D. Kovelis, C. A. Camillo, V. S. Probst, and A. F. Brunetto, "Relationship between pulmonary function and physical activity in daily life in patients with copd," *Respiratory medicine*, vol. 102, no. 8, pp. 1203–1207, 2008.